

## Beginning of

A student's introduction to the Iron Age pottery of  
Palestine

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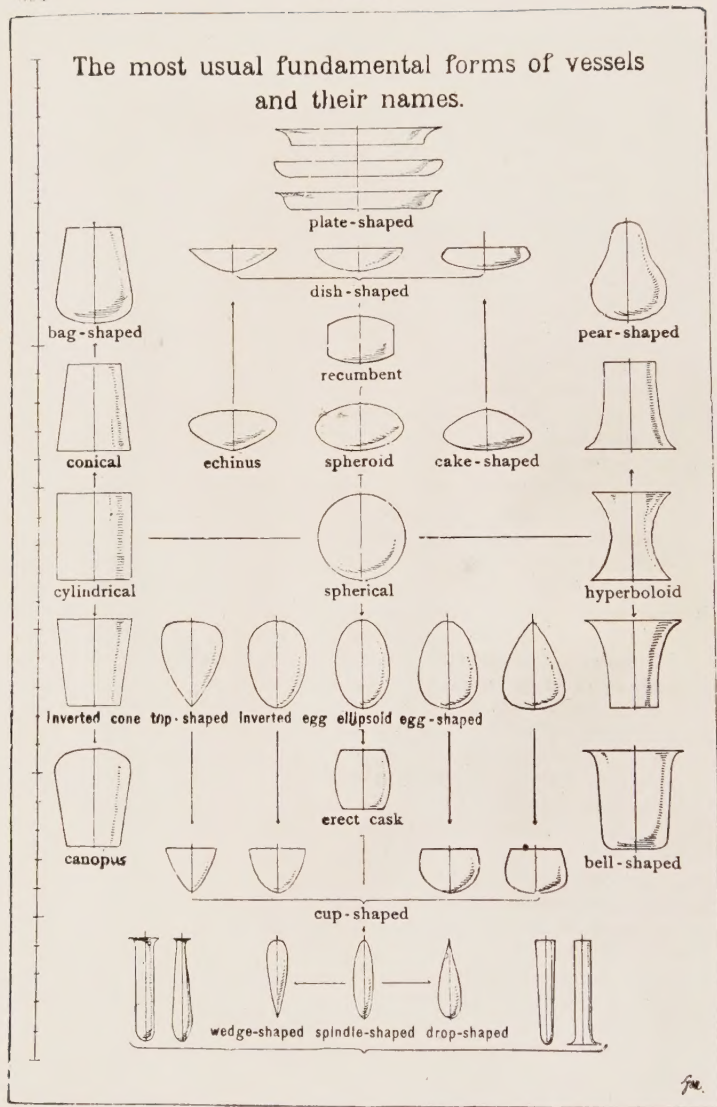


Plate 181.

Chart of Fundamental Vase Forms.

Meyer, Franz Sales, A Handbook of Ornament, third English edition revised, London, 1924, Plate 181, p. 304.

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speaking, such terms should be confined to words descriptive of fundamental characteristics of individual vessels, such as form, finish, and ware. This is particularly true of any new shapes to appear.

The fundamental shape of a vessel is its body shape.<sup>3</sup>✓

A chart worked out by Meyer gives these shapes with their names. It is suggested that general usage of this system would be a way of standardizing description and terminology with respect to form. Pl. 1 gives a reproduction of this chart of "the most usual fundamental forms of vessels."<sup>4</sup>✓

Other aspects of form are oral shape (rim), shape of handle, basal shape (base), and the shape of secondary features such as spouts. Variations of these are significant, but they do not indicate a major style trend. They are minor variations. A study of Meyer's chart will make clear that the fundamental body shape could remain the same, irrespective of what forms the rims, bases, and handles took. The "bowlness" of a bowl is not due to these subordinate aspects, but to its fundamental body shape. Thus, the aspects of pottery form must be properly weighted when a study of them is made; and they must be properly understood when descriptions are written. Yet it is clear from the reading of some descriptions that such is not always the case. Fortunately, most publications, especially the more recent ones, have illustrations of sufficient number and completeness to give an understandable idea of the fundamental forms at least.



### 3. Representation of Form

The most important ways of representation are scale drawings supplemented by photographs. The best procedure is to make as many as are necessary to represent properly the characteristic aspects of the vessels. In addition, descriptions of features which do not lend themselves to such representation are added. At present there is no standardized system of scales in use. It would be better if there were. At least there should be no variation within a publication; i.e., a common scale should be used, and exceptions should be in multiples of it. Then this system should also be carried through in the photographic records. If the common scale for drawings was 2:5, that for the photographs might be 1:5. When the individual has become trained to reading a particular scale, it is confusing, to say the least, to have just any scale used in photographs. At times a juglet is represented as covering as much field as a large jar. This would undoubtedly be perplexing to the new student, yet it is a factor which must be taken into account when studying the publications. Drawings and photographs will be used as illustrating material in the following study.<sup>5</sup>✓

### 4. Names of Forms

The names which are used for forms need defining.

Zîrs are large vessels of thick ware which are more than about 700 mm. in height.<sup>6</sup>✓

Jars are vessels of similar type to zîrs but of thin-



ner and finer ware, and smaller, being less than about 700 mm. in height.

Conical jars are small vessels, with or without handles, which have conical bases.

Three-handled jars have three-handles, a spout, and ring base.

Whole-mouth jars are roughly cylindrical in fundamental body shape, with rounded bases, and with the edges of the vessel wall at the open end of the cylinder modeled into rim shapes. Thus the mouth of the vessel is approximately the whole diameter of the jar.<sup>7</sup> Dr. C. C. McCown has suggested that the term cylindrical be adopted for this jar. As there is lack of consistency in naming these vessels, and as this name describes their fundamental form, it seems to be an excellent suggestion.

Cooking pots for the period under discussion are rounded-bottom vessels, usually having two handles, and of ware which characterize them from other vessels of the same period. They also exhibit, in many cases, external indication of use..

One-handled pots are rounded-bottom vessels with one handle.

Jugs are vessels with one handle and comparatively narrow mouth, with or without pouring lip.

Decanters are of the jug category, but have consistently recurring features which make them distinctive.

Red jugs are also consistent in general form, and in addition are covered with a rich red (hematite) slip.



Juglets are diminutive jugs.

Pitchers have forms similar to present day vessels of same name.

Bowls are vessels whose most conspicuous axis is the diameter.

Craters are deep bowls, or mixing vessels.

Lamps need no definition. The types, and their names, are best learned from the examples given below.

## 5. Finish.

The finish of vessels is various. It ranges from simple wet-smoothing to the more complicated painted decorations, and may be a combination of a number of techniques. This phase of pottery craft has been divided into manipulation of surface, covering of surface, and decoration.

Manipulation of surface is divided into smoothing, scraping, paddling and burnishing, all operations being performed before firing. Wet-smoothing refers to the application of a wet hand to the surface while the vessel is in a plastic state, in order that more evenness of surface might be achieved.<sup>8</sup> Sometimes the final shaping is accomplished by scraping some of the surface away by means of an instrument.<sup>8</sup> Burnishing is a smoothing or polishing of the surface by means of a rounded object (stone, shell, metal for example) held in the hand.<sup>8</sup> A variety of effects are possible depending upon the type of stroking, or whether the vessel is kept stationary or turned.<sup>8</sup>



The surface coverings which were common in the Iron Age are slips and washes. A simple distinction is to say that substance other than that of the general body of the ware applied to the surface before firing is a slip, while the wash is applied after firing.

Decoration in a broad sense includes aspects of finish mentioned above and others to follow. And in this sense it is almost synonymous with finish. But here it is used with special reference to painting, incising, impressing and applying (appliqué) designs on the surface of vessels. Some take place before firing, others after, but in general before. One technique, or a combination of techniques may be used. And as the variety is usually self-explanatory, no further definition is attempted here.

## 6. Ware.

Of aspects of ware, it has been said that the methods of study and description are mainly subjective and have no generally recognized standard; consequently it is safer to avoid the problem. This can certainly be used as a strong argument for improvement of method in this branch of archaeological research. The need becomes even more apparent when it is observed that Albright in various places of the same work relies upon ware as an important method for distinguishing between objects of different periods.<sup>9</sup>✓

To admit the need is also to admit the lack. The gaps will show in the descriptions. Many of these can be remedied by adopting certain suggestions which appear in Standards of Pottery Description.



Chemical analyses are often advisable for determining the composition of ware.<sup>10</sup>  
 ✓

Texture can be indicated by photographs; or a fair idea of it might be gathered by giving the approximate size and number of grits. It should not be too difficult to work out an acceptable scheme for this.<sup>11</sup>  
 ✓

For the determination of hardness, the apparatus on which March collaborated should prove very satisfactory.<sup>12</sup>  
 ✓ The color chart which he suggests may not be so practicable.<sup>13</sup>  
 ✓ However, he says it is easy to use and has proven its worth in practice. Therefore, in the interest of relative objectivity in description of pottery color, its general use is recommended.

## 7. Names of Types.

During the course of years certain names of vessels have become current in archaeological literature and circles. Some of them embody something of aspects of form, finish, and ware, as well as function. Among those already mentioned are the Cypriote juglet, the blackware juglet, elongated juglet, decanter, pyx-form and lamps of various types. Thus, reference to decanters calls to mind the complex of characteristics which describe this type. And so it is with some other characteristic types. Perhaps some of the more common ones do not fall within the period under discussion. In any case they are more easily learned by contact with the original and published material, some portion of which is to follow below.



## C. Chronology

### 1. Introductory

The chief purpose of this study is to point out the ceramic qualities which characterize divisions and subdivisions of the Iron Age of Palestine, as well as to indicate the common types of vessels, which might well have a wider chronological spread than a subdivision of the main period. But before proceeding to this phase it is necessary to consider the frame work within which these qualities and types are to be set; that is, what are the Iron Age of Palestine and its subdivisions?

But to give what is now considered to be the limits of this period is to dismiss the subject summarily. For a complete discussion of the archaeological chronology of Palestine would about cover the main aspects of the history of archaeological development in that country. And that would be a fascinating story in itself. Yet, a much more important reason for knowing something about the various chronologies used is for purposes of practical application.<sup>14</sup>  
✓

The chronological material which is to follow in the next section is the outcome of many years of research. Much sifting, comparing, and painstaking effort have gone into it. Although neither complete nor fixed, yet it is solid. Most recent publications will be found to follow such a scheme, as will likely be the case with those in the immediate future. But to use it as an inflexible yardstick against many of the earlier publications would give



some most curious results, results apt to be very unsatisfactory to a beginner seeking certainty. However, such reports are not to be thrown aside on that account, as it is to be remembered that they were the foundation stones, and many of them very substantial ones too, of this growing structure of archaeological science. The gaps between them and those laid out of line have in part been filled in and corrected by later efforts. The manner of this building will necessarily be of interest to the student who goes beyond a casual inspection, as no builder can lay but few courses without regard for the structure below.

## 2. The Problem of Chronology.

The earlier excavators, then, had a puzzling problem. It might be said that scholars previously were more accustomed to dealing with events, drawn from more or less complete documentary sources, than with material remains. Yet the remains, it was considered, would speak of events if only they could be recovered and their language understood. And so the relation of materials and events, and sequence of events brought up the problem of chronology, or what might be termed more properly archaeological chronology,<sup>15</sup> not as opposed to but in distinction from historical chronology. Webster defines chronology as "the science which treats of measuring time by regular divisions, and which assigns to events their proper dates." This defines historical chronology rather than archaeological chronology. But if materials is substituted for events, a



workable definition for the latter follows. The development of an archaeological chronology shows that more and more weight was given to materials and less to events in the ordering of divisions in the scheme. The shifting of emphasis constituted one of the chief problems of chronology.

### 3. Petrie's Tell el-Hesî Chronology.

Beginning with what Professor Albright calls, "the second phase of scientific exploration," which is the first phase of scientific excavation, the digging of Tell-el-Hesî was begun by W. M. Flinders Petrie in 1890.<sup>16</sup> In the following year he got out a report.

Fortunately, as Albright mentioned, Petrie came to the Palestine field with a number of years of excavating experience behind him, and for lack of remains giving precise dates, he stressed the importance of chronological determination on basis of pottery sequence. Thus, the building of an archaeological chronology for Palestine was started in the right direction; i.e., a study of the change of styles in form, finish, and ware of pottery vessels, particularly, could result in a sequential series that would serve as a workable substitute for the more precisely dated material which was lacking or scarce. However, the terminology which he used for his divisions has more of historical than archaeological flavor, and illustrates the fact that the method was not strictly from material to events. The earliest ware he termed "Amorite," which was followed by "Phoenician," "Phoenician and Aegean", and



"Jewish and Greek."<sup>17</sup> The span of years was from about 1670-450 B.C.<sup>18</sup> The terms are ethnological, geographical, and historical rather than archaeological.<sup>19</sup> With respect to their usages in the first categories, precise definitions are hardly possible, and certainly not acceptable to all scholars. So when they are applied to archaeological material, further uncertainty is apt to result. F.J.Bliss, who followed Petrie as excavator of this site, recognized this fact, and the terminology was modified.<sup>20</sup>

This, however, was not done until some years of experience intervened, for in the publication of his campaigns at Tell el-Hesî, 1891-1893, Bliss approached the problem of chronology with considerable reluctance.<sup>21</sup> The finds were limited in range, a fact which would result in some important gaps in a chronological scheme. Bliss, therefore, wished to defer the question until a more satisfactory solution was possible. So he practically adopted Petrie's arrangement and terminology, and assigned the eight "cities" to a period of about thirteen centuries extending from about 1700 to about 400 B.C.<sup>22</sup>

#### 4. Bliss and Macalister's Chronology

But during 1898-1900 Bliss and Macalister excavated at four sites, as a result of which they were able to establish a good workable chronology,<sup>23</sup> which is about as follows:

Early pre-Israelite	?--1500 B.C.
Late pre-Israelite	1500-- 800 [?] B.C.
Jewish	800[?]-300 B.C.



Seleucidian

300--100 B.C.

Roman

100 B.C.--

The terminology still carries the possibility of confusion as the authors pointed out, with respect to terms used in delimiting certain of the major periods of their scheme. A footnote at bottom of page 77 reads, "In this and the following chapters the references to 'Phoenicia' and 'Phoenician influences' must be considered as provisional, their final acceptance being dependent on the verdict of future discoveries in Syria."<sup>24</sup> Although they were aware of limitations in their scheme, they apparently did not realize that they must discontinue the use of historical, ethnological, geographical, etc., terms as descriptive of materials, which materials were then to be used as a means of fitting fragments of events into a sequence of history. For such usage would imply that much was known of events that would illuminate the materials, rather than that the materials were to be used to throw associated remains into the proper temporal perspective. Not that pottery and other artifacts would be considered as having no contact with events; far from it! But the artifacts, especially pottery, were necessary to establish a time sequence, inasmuch as more precise dating material, found in Egypt and Mesopotamia for example, was sporadic and uncommon. Yet the terminology of the early tables shows that this was not fully recognized. Their authors would have done well to have followed the pre-historians who had a sim-



ilar problem but did not confuse the issue by putting events before materials; for they did not know of the events and had to work back to them in their imagination through the study of a succession of artifacts. Perhaps after using the artifacts first as a means of getting temporal perspective, then they would use them to reconstruct events. A first use of their materials, then, was to establish a time scale. The value of pottery, especially, in the field of Palestinian archaeology, is somewhat analogous, yet it was some years before it was so accepted. However, Albright says in evaluations of the results of Bliss and Macalister that, "the classification of pottery was materially improved, while the chronology offered in their publication (1902) was not superseded for some twenty years. In fact, owing to the circumstances attending later pre-war excavations, nearly all chronological systems proposed during this period represent a distinct regression."<sup>25</sup><sub>✓</sub>

### 5. Macalister's Gezer Chronology

As an example of the latter, Macalister's system,<sup>26</sup><sub>✓</sub> as the result of five campaigns at Gezer (1902-1909), is given below.

<u>Period</u>	<u>Name</u>	<u>Approximate Limits of Date</u>
I	Pre-Semitic	To the entrance of the first Semitic inhabitants (?-2000 B.C.)
II	First Semitic	To the end of the Twelfth Egyptian Dynasty (2000-1800 B.C.)
III	Second Semitic	To the end of the Eighteenth Egyptian Dynasty (1800-1400 B.C.)
IV	Third Semitic	To the establishment of the Hebrew Monarchy (1400-1000 B.C.)



V	Fourth Semitic	To the destruction of the Hebrew Monarchy (1000-550 B.C.)
VI	Persian and Hellenistic	To the beginning of the Roman domination (550-100 B.C.)
VII	Roman	B.C. 100-350 A.D.
VIII	Byzantine	350-600 A.D.
IX	Early Arab	600-1100 A.D.
X	Crusader	1100-1200 A.D.
XI	Modern Arab	1200 A.D. onwards

#### 6. Miscellaneous Expeditions.

Other expeditions that were conducted between 1902 and 1922 were those of Ernst Sellin at Tell Ta'annek (1901-1903), G. Schumacher at Tell el-Mutesellim (Megiddo) (1903-1905), Ernst Sellin and C. Watzinger at Tell es-Sultân (Jericho) (1907-1909), Reisner, Fisher, and Lyon at Samaria (1908-1910), and Duncan Mackenzie at 'Ain Shems (Beth Shemesh) (1912).<sup>27</sup>

As Albright suggested above, the first three cannot be said to have made any contribution to the problem of chronological systems. Although Samaria was a standard-setting expedition, the deposits were of a type to permit fairly close identification with the historical narrative. The problem of chronology was thus much simpler, so little contribution along this line was submitted. The results at 'Ain Shems have little to offer, as is also the case with a few minor projects not mentioned above.



## 7. A Joint Chronology.

After the war, due to a variety of circumstances, archaeological research took on new life, and entered a new phase. One of the early results was the outcome of a coöperative effort among members of several archaeological schools in Jerusalem.<sup>28</sup> It is as follows:

A new chronological classification of Palestinian Archaeology

### I. STONE AGE

- i. Paleolithic
- ii. Neolithic

### II. BRONZE AGE

- i. Early Canaanite to 2000 B.C.
- ii. Middle Canaanite 2000--1600 B.C.
- iii. Late Canaanite 1600--1200 B.C.

### III. IRON AGE

- |                         |                    |                             |
|-------------------------|--------------------|-----------------------------|
| i. Early Palestinian    | 1200-- 600 B.C.    | a.Philistine<br>b.Israelite |
| ii. Middle Palestinian* | 600-- 100 B.C.     | a.Jewish<br>b.Hellenistic   |
| iii. Late Palestinian*  | B.C.100-- 636 A.D. | a.Roman<br>b.Byzantine      |

### IV. MODERN

- i. Early Arab 636--1100 A.D.
- ii. Middle Arab 1100--1500 A.D.
- iii. Late Arab 1500--

Adopted Jerusalem, July 14, 1922. (Signed) John Garstang, Louis Vincent, W. F. Albright, W. J. Phythian-Adams. (Note) This nomenclature is adopted only for convenience and consistency. In practice, following Professor Fisher's suggestion, the terms "Hellenistic, 300-100 B.C.; Roman, 100 B.C.--350 A.D.; Byzantine, 350-636 A.D." will naturally be employed (W.F.A.). In the note following the table is an admission that this scheme was not entirely satisfactory at the time of its drawing up; in fact certain terms were



re-used, which, in the older schemes, were not found satisfactory. Moreover they were used in a slightly different way, thereby adding to the confusion, and there were other scholars who did not agree with the scheme.<sup>29</sup>✓

It is to be observed that this system contains terminology which has other than archaeological connotation, and some confusion followed. For the broader the definition, the less precise its application, which is a mere reminder of the obvious. Yet the major divisions were given terms which are now part of the stock in trade of the archaeological research worker. A further refinement was to follow.

#### 8. Albright's Chronology.

In 1931 Albright published the system which had been in rather general practice among Palestinian archaeologists for several years before.<sup>30</sup>✓ The table is as follows:

Early Bronze (EB)	I	cir. 3000-2600 B.C.
" "	II	" 2600-2300 B.C.
" "	III	" 2300-2000 B.C.
Middle Bronze (MB)	I	" 2000-1800 B.C.
" "	II	" 1800-1600 B.C.
Late Bronze (LB)	I	" 1600-1400 B.C.
" "	II	" 1400-1200 B.C.
Early Iron (EI)	I	" 1200- 900 B.C.
" "	II	" 900- 600 B.C.
" "	III	" 600- 300 B.C.



The terms used have no relationship with those which appear in the earlier schemes. In connotation they are archaeological. It would seem that the problem is now recognized to be the assigning to materials of their proper dates. Thus, and rightly so for the establishing of an archaeological chronology, the emphasis is from materials to events, rather than from events to materials. It was the uncertainty of approach to this problem in earlier research, together with scarcity of artifacts, which lead to the confusion in chronologies.

However, the periods following the Iron Age are successively Hellenistic, Hellenistic-Roman, Roman, Byzantine and so on. Again they are terms which have other than archaeological connotation. And rightly so! Firstly, the possibilities for dating are much more numerous; consequently dependence upon pottery (the main stay of the archaeological chronology) is not nearly so important. Thus it is no longer necessary to use terms which throw into prominence the qualities and forms of materials, which remind us, secondly, that even the materials have their historical aspect. They, too, are of events. And this fact must not be lost sight of even for periods when their first use, by the research worker, is a dating device. Although very important for determination they are at least as important for interpretation. So again the archaeological and historical are more closely joined, but it is now a result demonstrated by the facts of research.



## 9. Divisions of the Iron Age.

At this point it might be well to throw a little light on what would likely be a question in the minds of many. That is, on what basis have the divisions in the Palestinian chronology been made? A precise answer is difficult to give; for it would seem that any information at hand was used. As with the development of the archaeological chronology in general, both events and materials were considered. But now materials are more heavily weighted determinants, although they are not necessarily pottery.

For example, the use of iron for making tools, through knowledge of metallurgy, gave a name to a period called the Iron Age. About the same time as the first appearance of this art, local pottery making technique fell to a very low level, and the importation of certain foreign wares ceased. With these material manifestations were associated important events--movements of peoples, wars, conquests, disruption of old trade channels, and many other significant happenings. And so is begun the period called Early Iron Age, or Albright's Early Iron I. Further study will result in its being subdivided.

Several centuries later a somewhat different culture developed which exhibited some new forms of pottery, new and wide spread techniques of decorating pottery, other evidences of contact with the neighboring world, which are in part symptomatic of events of the day. This period is called Middle Iron Age, or Albright's Early Iron II, and also has potentialities for subdivision.



The third main subdivision of the Iron Age is called Late Iron Age, or Albright's Early Iron III. Its beginning, about 600 B.C., is marked by an extensive destruction of towns in Judaea. A serious blow was also dealt to the culture complex sometimes referred to as the purest Hebrew material culture known, that of the Middle Iron Age, and sometimes called Israelite. For not long afterwards the archaeological remains, in buildings and artifact, give witness to an increasing stream of influence from outside sources on what had been a far more exclusive society.

Following upon Late Iron Age came the Hellenistic period which gradually grew out of the former period. It represents an intensification of, rather than a break with, the Late Iron Age.<sup>31</sup> That is to say it does not strictly begin with the conquests of Alexander. Therefore great events are not always the markers of important modification of the material culture. Yet it is observed that there was often a very close association, but not necessarily a causal correlation.

#### 10. Iron Age Chronology used in this Study.

In a general way some of the characteristics of the Iron Age have been suggested. As for the details which mark the main subdivisions and their divisions, the study which follows will attempt to bring out the distinguishing traits, at least with respect to pottery.



The chronology which will be used is:

Early Iron Age	(Early Iron I)	1200-900 B.C.
Middle Iron Age	(Early Iron II)	900-600 B.C.
Late Iron Age	(Early Iron III)	600-300 B.C. <sup>32</sup> ✓



## D. Iron Age Pottery of Palestine

The appearance in deposits of iron tools, formed by craftsmen with knowledge of metallurgical processes, gives its name to this period.<sup>33</sup> Yet there were other important evidences of a cultural change, the pottery record being one of the most significant. This change, however, was probably not uniform for all of the geographical area commonly considered to be Palestine.<sup>34</sup>

The chronological scheme attempts to strike a balance that will take into account the major trends as well as some of the more localized variations. Thus, ca. 1200 B.C. for the beginning of the Iron Age, somewhat balances the earlier Israelite influences with the later "Philistine."

The Israelite influences will be more heavily weighted in the following study, inasmuch as the larger portion of the material is drawn from hill country sites.

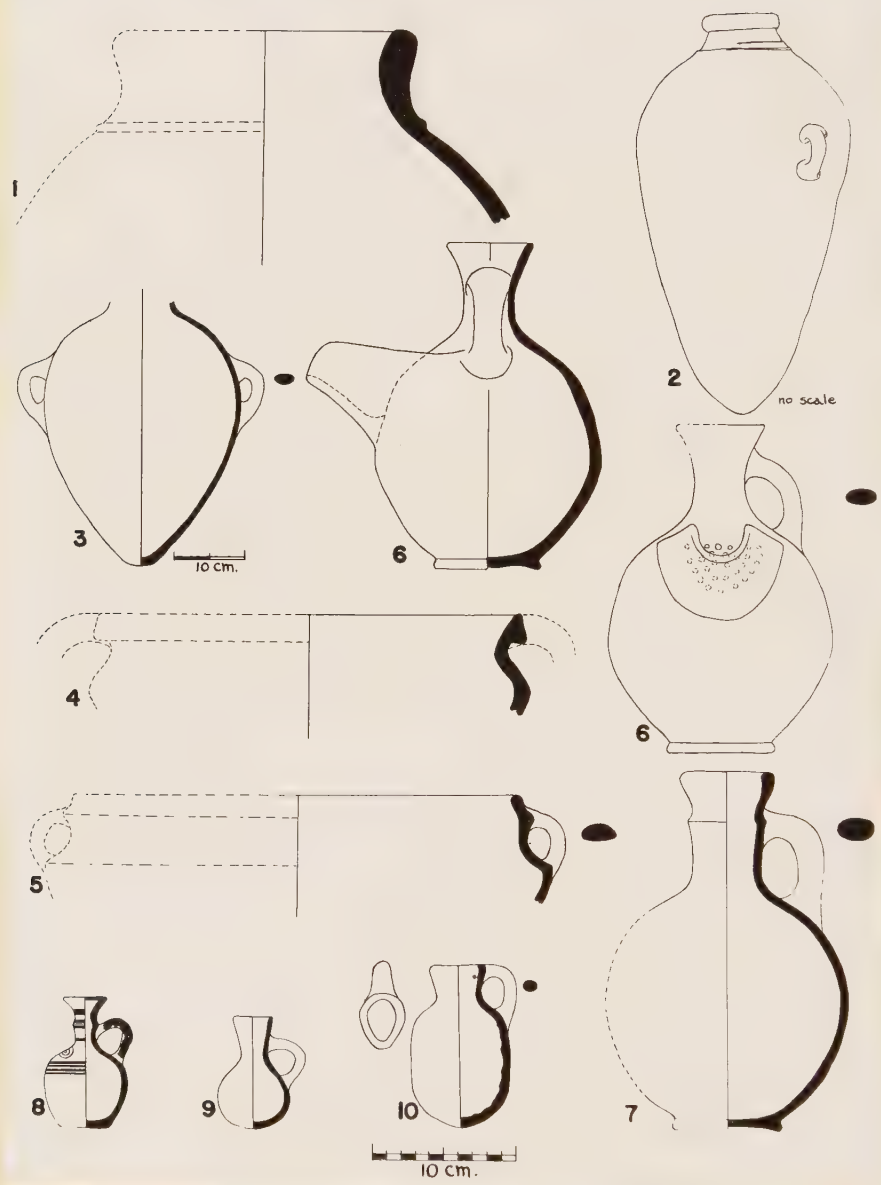
However, even of these sites, it has been said that, "throughout the history of Palestinian pottery, the study is very largely a study of foreign influences."<sup>35</sup> And Albright at Tell Beit Mirsim found the transition from Late Bronze Age to the "Philistine" phase represented a break when there were no foreign importations.<sup>36</sup> This negative aspect, then, may be considered to be an important factor for determining the beginning of Early Iron I. Associated with this break was a deterioration in manufacturing technique, although the local forms were continued in use for





EARLY IRON 1200-900 B.C.

PL. 2



1. Tell en-Nasbeh, Silo 62, AH23, X46. Rim fragment of zîr. Ware: brown with gray core; black grits. Finish: wet-smoothed.
2. Seilûn (Shiloh), House A, West of the "city wall," Vessel 2 (176<sup>2</sup>). Zîr with folded-over rim, short neck, pared-off and not laid on ribbon ridge in low relief at junction of shoulder and neck, and small base, 3.5 cm. broad. Ware: surface of varying gray and reddish-brown. Finish: seems to be stroked with thin, fine grout. H. 1.08 m. Kjaer, Hans, The Excavation of Shiloh 1929, JPOS, vol. 10, pp. 94, 95, 100, 105; also Kjaer, Hans, I det Føllige Land, København, 1931, fig. 25, p. 36.
3. Tell en-Nasbeh, Tomb 32, South Strip, West Cemetery, X84. Jar. Neck missing. Ware: very soft; dull light red-brown; small and fine white and gray grits. Finish: wet-smoothed. H. 375 mm.+
4. Tell en-Nasbeh, AA12, II, Side of Tower, X5. Rim fragment of cooking pot. Ware: fairly soft, crumbly; fire-blackened surface with red-brown core; medium white grits. Finish: wet-smoothed. Diam. ca. 300 mm.
5. Tell en-Nasbeh, Room 313, AC24, I, X9. Cooking pot. Rim fragment with handle. Ware: fairly soft; brown core; medium gray grits. Finish: wet-smoothed; fire-blackened. Diam. ca. 310 mm.
6. Tell en-Nasbeh, Tomb 32, South Strip, West Cemetery, X166 (1930). Spouted jug. Part of rim missing. Ware: fairly soft; brown; small white, fine white and gray, grits. Finish: horizontally burnished; painted gray bands around body. H. 232 mm.
7. Tell en-Nasbeh, Tomb 32, North Strip, West Cemetery, X136 (1919). Jug. Wall section missing. Ware: fairly hard; light brown; medium white, very many fine white grits. Finish: wet-smoothed. H. 254 mm.
8. Tell en-Nasbeh, Tomb 32, East Strip, West Cemetery, X365 (2026). Juglet. Cypriote type. Ware: fairly hard, paste; red-brown with light brown core. Finish: horizontally burnished; decorated with black paint; three designs © on shoulder. H. 91 mm.
9. Tell en-Nasbeh, Tomb 32, South Strip, West Cemetery, X425 (2065). Juglet. Blackware. Finish: vertically burnished. H. 80 mm.
10. Tell en-Nasbeh, Tomb 5, North Cemetery, X256 (1415). Juglet. Rim slightly pinched for pouring. Ware: light red; medium white grits. Finish: spiral ribbing inside; outer surface scratched in many places; weathered. H. 115 mm.



a longer or shorter period, as the case may be.<sup>37</sup> These changes, which are the more general aspects marking the Early Iron Age, were certainly closely associated with important events of the time, as has been suggested above. But now to pass to the more particular features.

### Early Iron Age (Early Iron I)

#### 1. Form

This period, as well as those of the later Iron Age, has a fair proportion of zîrs, or large storage jars, although there is little about them that is characteristic. They have two or more handles with smooth oval sections, rounded to pointed bases, fairly simple rims frequently of the rolled variety, and rather coarse thick ware. The more usual body shape is probably inverted egg. However, one type with a slight ridge at the juncture of neck and shoulder is considered characteristic of Early Iron Age.<sup>38</sup> See Plate 2: 1, 2.

Aside from having ware of a finer texture and thinner section, the general remarks about zîrs probably apply to the smaller storage jars, although this type of vessel gets increasingly numerous during the Iron Age. A variety that makes its first appearance in the Early Iron Age is illustrated Pl. 2: 3.

The round-bottomed cooking pot with profiled and collared rims are the common types for the Late Bronze Age and Early







IRON AGE POTTERY THE SO-CALLED PHILISTINE TYPES

## Iron Age. The So-called Philistine Types

1. Ain Shems. Remains of cream slip over buff clay. Black point thinning to brown, and red (shown by crossed and downward pen strokes). Small hole near base. Handle was at quadrant to spout joining body near base of neck, and must have been vertical. On the side not shown was a swan as in 4, 5, and 8. P.E.F. Annual, 1911-12. Excavations (see fig. 244). The parallel black line is one of the characteristics of this style which differentiates it from the earlier types of the Late Bronze Age. Museum No. V.504.
2. Carmel, Tomb II. Orange-red clay. Dark brown and red point, much effaced. Further side lost. P.S.A.J. Bulletin, No.5. Plate II, ii. Museum No. V.1687.
3. Gezer. Red clay with cream slip on exterior. Black and red point. Remains of horizontal handles. Macalister, Gezer, Vol.III, Plate CIVIII,5. Museum No. V.1419.
4. Provenience unknown. Heavy pink-grey ware. Black and red point. Mended. First example of the formal swan of the period. Museum No. V.1687.
5. Gezer. Remains of light yellow slip on buff clay. Black point. Much pieced together. One handle gone. Macalister, Gezer, Vol. II, Fig. 299. P.E.F. Quarterly, April, 1922. Pl. II, 23. Shape of Mycenaean stirrup vase. Museum No. V.500.
6. Gezer. Light reddish-buff clay. Deep red and black point. Macalister, Gezer, III. Pl. CIV. Museum No. V.422.
7. Provenience unknown. Remains of white slip on red clay. Black and red point. Museum No. V.424.
8. Tell es Safi. Remains of cream slip on red clay. Light red and black point. Handle was at quadrant from spout, and must have joined rim because no second fracture is visible on the body. Much pieced together. Bliss and Macalister, Excavations in Palestine, Plates 20 and 44. Museum No. V.505.



Iron I periods. There were earlier prototypes, also wheel-made vessels.<sup>39</sup> ✓ Many of the earlier vessels apparently were without handles; however, pots with two handles became more common in the Early Iron Age.<sup>40</sup> ✓ For types see Pl. 2: 4, 5.

Jugs with strainer spouts are considered typical of the Early Iron Age as they are most numerous then.<sup>41</sup> ✓ Another shape of this period is shown on Pl. 2:6.<sup>42</sup> ✓ Jugs of the so-called Philistine type and with characteristic decoration are illustrated on Pl. 3. They are characteristic of what might be called a division of the Early Iron Age, which might be dated ca. 1170-1000 B.C.<sup>43</sup> ✓

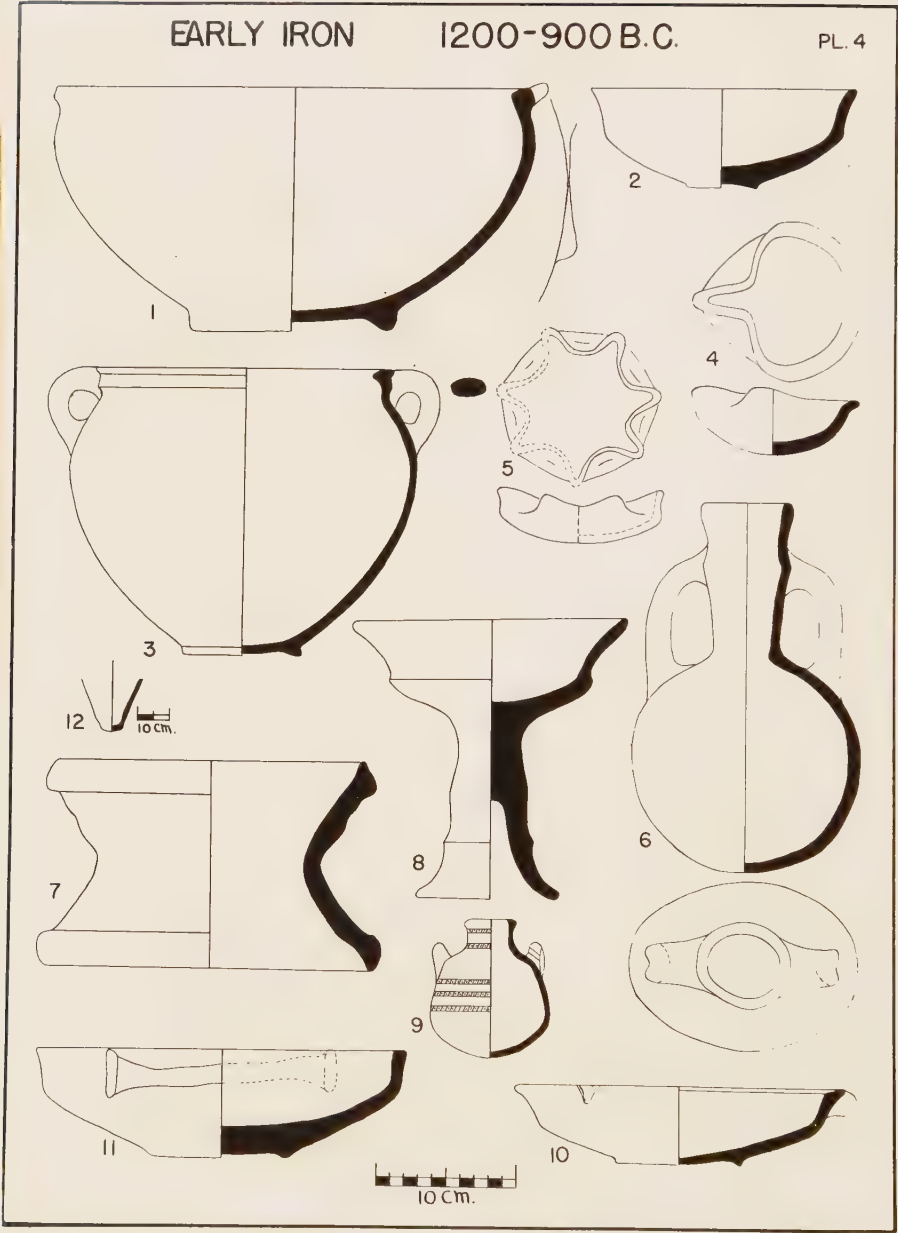
The imported Cypriote juglet, Pl. 2:8, is found in deposits dating from about 1100-900 B.C. or a little later.<sup>44</sup> ✓ Perhaps a slightly earlier type is the ampulla with two handles, but otherwise quite similar, which is shown at the lower right of Plate IX, The Swedish Cyprus Expedition, II Plates, Stockholm, 1935. Fragments of these vessels have been found in Palestinian sites.

Typical black burnished juglets of Early Iron Age have more graceful bodies, longer necks than those of Middle Iron Age,"and handles which join the neck some distance below the rim--the most striking distinction between the juglets of the two periods."<sup>45</sup> ✓ For the earlier type see Pl. 2:9.<sup>46</sup> ✓

The elongated juglet, which appeared in Early Iron Age and continued to end of Middle Iron is a common type.







1. Tell en-Nasbeh, Silo 62, AH22, X49 (126). Bowl, one (or two) handle(s) on rim. Ware: brown, baking gray in core; black and white grits. Finish: wet-smoothed. Diam. 350 mm.
2. Tell en-Nasbeh, Tomb 32, East Strip, West Cemetery. Bowl. Ware: soft; red-brown; small and fine white grits. Finish: wet-smoothed; horizontally burnished interior. Diam. 130 mm. X472 (2110).
3. Tell en-Nasbeh, Tomb 32, North Strip, West Cemetery, X498 (2189). Crater. Ware: fairly soft; brown, light brown surface; many very fine white grits. Finish: wet-smoothed. H. 210 mm. Diam. 250 mm.
4. Tell en-Nasbeh, Tomb 32, East Strip, West Cemetery, X528 (2152). Round-base lamp. Ware: fairly hard; orange-brown; small and fine white and gray grits. Finish: wet-smoothed; smoked spout. L. 120 mm.
5. Tell en-Nasbeh, Cistern 354, AD17, baskets 1-3, X7 (2795). One-half fragment of seven-spouted round-base lamp. Ware: medium hard; outer surface light orange-brown and inner surface medium brown-drab with core merging containing very many very fine and occasional fine and small white grits. Finish: wet-smoothed; all spouts remaining (four), smoke-blackened. Greatest diam. 120 mm.
6. Tell en-Nasbeh, Tomb 32, South Strip, West Cemetery, X549 (2177). Flask. Ware: fairly soft; light brown; small gray and very fine white grits. H. 267 mm. Diam. 160 mm.
7. Tell en-Nasbeh, Room 290, S14, X2 (1424). Ring stand. Ware: buff with gray-brown core; large and medium brown and white grits. Finish: wet-smoothed. Diam. ca. 248 mm.
8. Tell en-Nasbeh, Tomb 32, North Strip, West Cemetery, X546 (2175). Chalice. Part of rim and base missing. Ware: soft; red-brown; many small and fine white grits. Finish: wet-smoothed. H. 207 mm.
9. Tell en-Nasbeh, Tomb 32, Center, West Cemetery, X327 (2104). Pyx. Wall fragments missing. Ware: fairly hard; light brown; small white grits. Finish: vertically burnished in spots, painted horizontal gray band between two red-brown bands. H. 100 mm.
10. Tell en-Nasbeh, Tomb 5, North Cemetery, X164 (1354). Major portion of bowl; two handles. Ware: hard, sandy; light red. Finish: wet-smoothed on outer surface; inner surface and top of rim horizontally and closely burnished. Incised groove near shoulder running most of way around body. Diam. to edge of rim 235 mm. H. 55 mm.
11. Tell en-Nasbeh, Tomb 32, East Strip, West Cemetery, X471 (2109). Bowl. Ware: soft; light brown, light orange-brown spotted surface; fine white grits. Finish: wet-smoothed. Diam. 265 mm.
12. Tell Beit Mirsim, stratum C. Base fragment of store-jar. The Annual of the American Schools of Oriental Research, vol. VIII, 1922, pl. 17:1, p. 89 f.



Many are burnished vertically and some have a slip. The earlier form, which may survive into the ninth century, is distinguished from the later by having a pinched lip.<sup>47</sup> See Pl. 2:10.

Bowls with wavy (cyma) profile are said to be characteristic of fully developed Early Iron Age.<sup>48</sup> See Pl. 4:1. It is suggested that the carinated bowls of the Middle Bronze Age are the prototypes of these vessels. There is little to distinguish them excepting technical deterioration, slightly larger size in the case of the cyma type, which is also less angular than the better carinated bowls.

The Tell el-Fûl material indicates that the small red burnished bowl is another characteristic type of the Early Iron Age.<sup>49</sup> See Pl. 4:2.

Another negative aspect probably should be introduced here as it is a "solid criterion for distinguishing Bronze from Iron Age pottery."<sup>50</sup> The so-called Late Bronze Age inverted rim forms of bowls disappear completely in Early Iron Age. This type is not to be confused with the earlier form, which is quite prominent and sharp, and might better be described by saying the edge of the rim is folded or rolled inwards, a slight prominence being given thereby to the inner side of the rim.

The deep bowl, or crater, emerged in the latter part of the Late Bronze Age and became one of the most characteristic types of the Early Iron Age. The earlier type is deeper and has a sharp inward jog just below the rim.<sup>51</sup>







IRON AGE POTTERY. THE SO CALLED PHILISTINE TYPES

## Iron Age Pottery. The so-called Philistine Types

1. Provenience unknown. Rough grey clay covered with light wash of yellow. Bands of thin black and red paint (the red represented by crossed pen lines). Hole near base. Museum No. B.119.
2. Provenience unknown. Light yellow wash on rough reddish clay. Decoration in black and red paint. Typical 'horizontal' handles. Museum No. B.113.
3. Ascalon. Fine reddish clay with white wash on exterior. Black and red paint within and without. Black spiral on interior at base. Restored. Palestine Exploration Fund, Quarterly Statement, April, 1923. Plate II. No. 12. Museum No. B.646.
4. Gezer. Cream slip on reddish clay. Purple-brown paint. Macalister, Gezer, Vol. II, p. 191. Fig. 346. Two other specimens were found bearing this design. It appears to have no prototype outside the country. Museum No. B.120.
5. Ascalon. Light red clay. Dark brown paint. An example of the fish motive common at this period.
6. Ascalon. Light red clay. Red bands. P.E.F. Quarterly, April, 1923. Pl. II, 7. Museum No. B.114.
7. Provenience unknown. Fine deep red clay. Precise workmanship. Black spiral on inner side of base. Museum No. B.113.
8. Carmel, Tomb 7. Smooth even orange-pink clay. Finely made. Meti-  
Journal of the Palestine Exploration Fund, Bulletin, 1923.  
School of Archaeology in Jerusalem, No. 5. Pl. III, 33. Probably imported Cypriote. Museum No. B.631.
9. Ascalon. Reddish clay. Black and red paint. P.E.F. Quarterly, April, 1923. Pl. II, No. 10. A combination of the spiral with the Maltese Cross, both characteristic of this period. Museum No. B.645.



An Early Iron Age type is seen on Pl. 4:3.

And the "Philistine" crater is even more characteristic and of a more limited period (ca. 1170-1000 B.C.) as mentioned above. It also has additional characteristic features in finish and decoration and the tilted horizontal loop handle. For examples see Pl. 5.

Saucer lamps with pinched spouts make their first appearance in the Middle Bronze Age.<sup>52</sup> In general, the lamp cannot be considered a safe criterion for chronology.<sup>53</sup> However, the Late Bronze Age rounded-bottom lamps seldom have a wide flat rim, while those of the Early Iron Age nearly always do. See Pl. 4:4. They are thus intermediate in type between the rounded-bottom, narrow-rim type of Late Bronze and the wide flat-rim variety with flat or disc bases of the Middle Iron Age.<sup>54</sup> However, these variations, though overlapping, should be more significant than might be supposed if the quantitative aspect of the evidence is properly weighed. And it might be that these variations seem confusing because of the quantitative evidence; that is, being numerous they do not lend themselves as readily to typological segregation. Other categories might offer similar difficulties if the evidence was as numerous.

The seven-spouted round-bottom saucer lamp shown on Pl. 4:5 is usually found in the tenth century B.C. or slightly earlier.<sup>55</sup> Tell en-Nasbeth material would in-



dicating a slightly lower date than the tenth century, as this type of lamp was in association with a low-foot lamp, and other types capable of later dating.

The two-handled lentoid (pilgrim) flask first appeared in Late Bronze Age, but attained its greatest popularity in the Early Iron Age, when it was often decorated with black and red painted concentric circles. A similar, but unpainted type occurs in Middle Iron Age.<sup>56</sup> See Pl. 4:6.

Ring stands are common in Early and Middle Iron Age, as they probably are for any periods in which inverted egg-shaped zirs and jars are common. Types are not characteristic, so the illustration, Pl. 4:7 will do for both phases.<sup>57</sup>

Early Iron chalices have a higher trumpet-foot base and a more varied profile than those of the Late Bronze Age.<sup>58</sup> The later type is common in tombs of the Hebrew monarchy period,<sup>59</sup> but like the flasks, lacked the black and red painted band decoration often found on the Early Iron Age examples. Therefore, as for the flasks, only one type will be shown. See Pl. 4:8.

Towards the close of the Late Bronze Age the local potters were imitating certain of the Mycenaean vessels. Perhaps the most commonly imitated one was the pyx, which continued to be copied until late in the Early Iron Age.<sup>60</sup> Some of these vessels have painted decoration, bands of



red and black, and trellis pattern in red being most common. This is really a continuation of the Late Bronze Age decorative technique. See Pl. 4:9.

Several aspects of form which are significant are shown on Pl. 4:10. The graceful flat rim is of a type which Albright found at Tell Beit Mirsim to have been introduced in the Early Iron Age and continued through the Middle Iron Age down to the seventh century B.C.<sup>61</sup> Its handles, of the pinched button (tab) variety, are often found in latter part of the Early Iron Age and beginning of the Middle Iron Age.<sup>62</sup>

Another bowl has a handle of a type found only on bowls and is called bone, or spatulate, or bar. It is considered characteristic of the Early Iron Age, probably dying out early in the Middle Iron Age.<sup>63</sup>

The vertical loop handle with the smooth oval section appeared in the Middle Bronze Age<sup>64</sup> and became typical of the Late Bronze Age and the Early Iron Age.<sup>65</sup> See Pl. 2:2,3.

The tilted horizontal loop handles of "Philistine" craters are a characteristic feature of these vessels which are in turn characteristic of the period from ca. 1170-1000 B.C.<sup>66</sup> See Pl. 5.

"Characteristic of Late Bronze store-jars and water-jars is the knobbed base, which lasts for centuries, passing out of use late in period B" (Early Iron Age).<sup>67</sup> See Pl. 4:12.



## 2. Finish

"The LB [Late Bronze Age] was the most flourishing age of painted pottery in the entire pre-Islamic history of Palestine."<sup>58</sup> ✓ Some of the common painted motives for the period are carried over into the Early Iron Age. Among them were straight-wavy-straight,<sup>59</sup> ✓ which has been found in the Middle Bronze Age and is called the "waggle" motive by Sir Flinders Petrie.<sup>70</sup> ✓ See Pl. 5:4. And as mentioned above painted decoration in bands and rings is very characteristic of Early Iron Age all over Palestine.<sup>71</sup> ✓ See Pls. 3 and 5. The red-painted cross, which goes back to the Middle Bronze II, is characteristic of Late Bronze Age, and continues in the Early Iron Age.<sup>72</sup> ✓ See Pl. 5:8. Two red-painted parallel lines running inside at right angles from rim towards center of bowls is said to be a typical Early Iron Age technique;<sup>73</sup> ✓ as also a vertical loop handle having a centered longitudinal line along the top with short transverse lines.<sup>74</sup> ✓

The "Philistine" jugs and craters are also characteristic in decoration. The designs are often painted over a cream colored wash. Perhaps the most common motives are the spiral, bird (swan), often pluming its wings, Maltese cross and checkers, which are done in red-brown, red, and black.<sup>75</sup> ✓ Turn again to Pls. 3 and 5 for examples.

Burnishing was a common technique in the Middle Bronze Age, but was only occasionally used in the Late Bronze Age. However, it was again commonly used in the Early Iron Age,<sup>76</sup> ✓







Top Tell en-Nasbeh. Fragment of bowl wall burnished inside with  
left strokes from rim to center. Palestine Institute Photograph  
No. 501.

Top Tell en-Nasbeh, R17x, sub I, X5. Fragment of bowl rim. Ware:  
right medium brown surfaces, light gray core. Finish: red slip in-  
side and below shoulder outside; burnished as described below.  
Illustrates chordal line burnishing inside below shoulder; same  
area also has some burnishing with strokes from shoulder to  
center; burnished horizontally above shoulder both inside and  
outside.

Bottom Tell en-Nasbeh, Cistern 166, AG20, X4, (527). Ware: red.  
left Finish: ring-burnished inside and on rim. Diam. 165 mm.

Bottom Tell en-Nasbeh, Cistern 162, AJ21, X28, (515). Ware: light  
right red. Finish: ring-burnished inside. Diam. 150 mm.



and the technique was continuous hand-burnishing. Irregular criss-cross hand-burnishing was also characteristic of Early Iron Age, and went out of use early in the Middle Iron Age.<sup>77</sup> See Pl. 6: upper right.

The horizontal hand-burnishing, inside and outside, was characteristic of thin walled bowls of Tell el-Fûl ca. 1020-1000 B.C.<sup>78</sup> Vertical burnishing is said to have come in from the north at the opening of the Early Iron Age.<sup>79</sup> This type of finish continued in use throughout the Iron Age.

Then there is some use of hollow decoration, relief and impressions and incisions but none are numerous or characteristic. See Pl. 10: lower top center for an example of plastic applied relief, which, however, is of a later period.

### 3. Ware

The study and description of ware is not yet sufficiently advanced and standardized to yield reliable results.<sup>80</sup> But the results which have been realized are often significant, especially in connection with the evidence supplied by form and finish.

At Tell el-Fûl the earliest Early Iron Age ware was found to be coarser with more limestone grits than that of the following phase.<sup>81</sup> The ware of cooking pots was found to be coarser and with higher grit content in the Early Iron Age than the succeeding periods. In this respect also, they did not vary much between 1500-1000 B.C.<sup>82</sup>



Another ceramic aspect of transitional phase between the Late Bronze Age and the Early Iron Age is lack of smoothing of surfaces, so that pronounced wheel marks show even on outer surfaces of bowls.<sup>83</sup> This is in line with the deterioration in pottery technique which has led to the ceramics of this period being called the worst in the history of Palestine from the Middle Bronze Age to the Arabic period.

#### 4. Miscellaneous

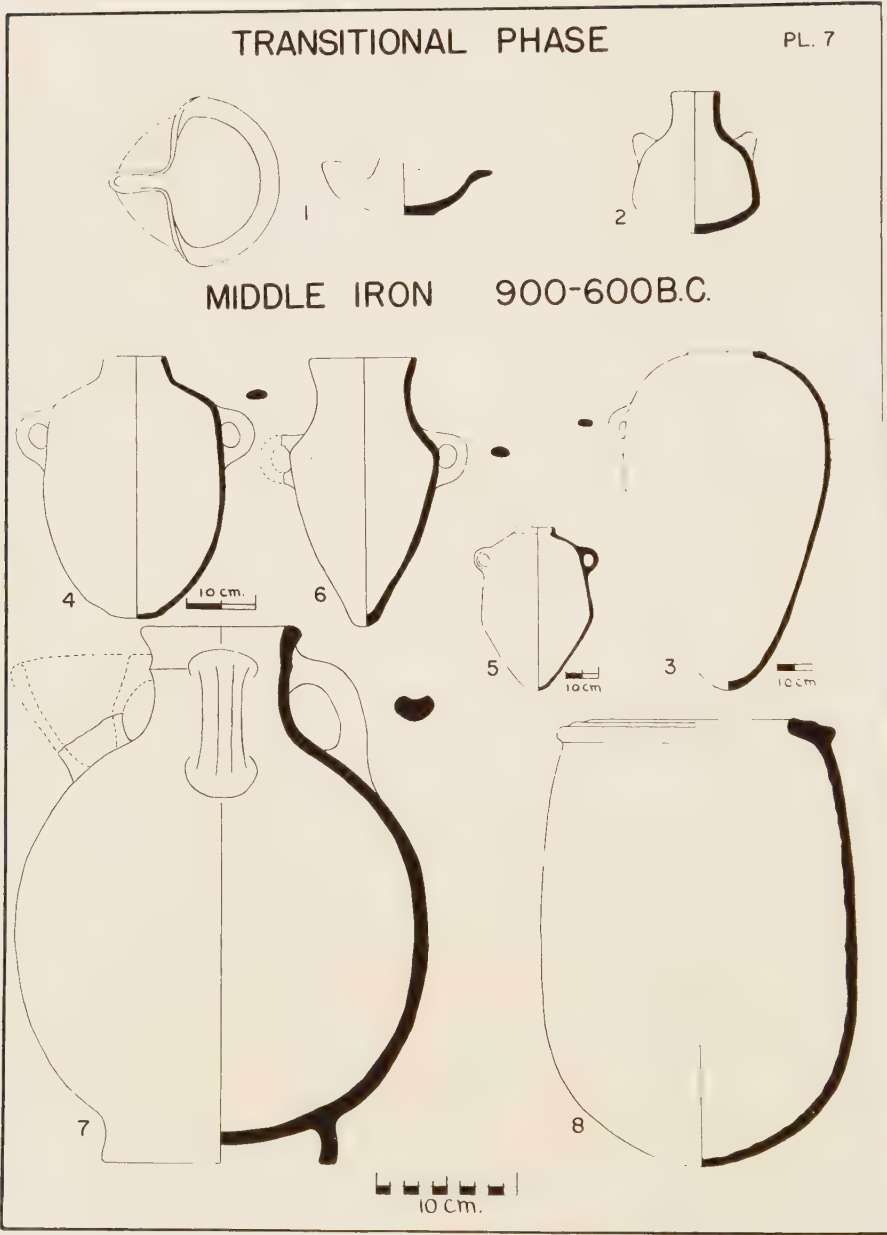
Then, aside from the vessels discussed above, there are other objects of clay that exhibit styles of manufacture which lend themselves to typological analysis. "Astarte" figurines form such a series. The type with two spirally curled locks of hair on either side of the head, and with upraised hands holding flowers with long stems was called by her Canaanite name, "Kadesh," by the Egyptians, and was common in the Late Bronze Age but disappears entirely in the following period.<sup>84</sup> However, the Early Iron Age, unlike the Late Bronze Age and the Middle Iron Age, which have one type each, has "Astarte" figurines of many different types. One characteristic one, perhaps of the Philistine phase (ca. 1170-1000 B.C.), represents the naked goddess holding to her bosom a dove with outstretched wings.<sup>85</sup>

#### Transitional Phase

This phase occupied several centuries, approximately the tenth-ninth B.C.,<sup>86</sup> and in the archaeological record is to be seen evidence of the metamorphosis of "Israel from a loose confederation of pastoral and agricultural clans in little contact with the outside world, to a typical Syrian state."<sup>87</sup> A result was a characteristic ceramic craft







1. Tell en-Nasbeh, Tomb 3, North Cemetery, Y50 (1129). Disc-base lamp. Ware: sandy, soft from weathering; light red; two or three large white grits. Finish: spout smoked. H. to rim 33 mm. Diam. of disc base 45 mm. Greatest diam. 125 mm.
2. Tell en-Nasbeh, Tomb 32, North Strip, West Cemetery, X290 (2087). Pyx. Blackware. Finish: horizontally burnished. H. 105 mm.
3. Tell en-Nasbeh, Room 671, AA16, I, X1 (2878). Wheel-made conical jar. Ware: medium hard; surfaces mottled light orange, buff and light brown over core of light brown containing very many white grits of various sizes and many large black grits. Finish: wet-smoothed; finger impression on one handle; the other handle bears faint incised cross. H. 990 mm. Diam. of rim 160 mm.
4. Tell en-Nasbeh, Tomb 29, West Cemetery, X1 (1748). Wine jar. Small part of wall missing. Ware: fairly hard; gray with tinge of brown; medium, fine white grits. Finish: wet-smoothed. H. 388 mm. Diam. 268 mm.
5. Tell Beit Mirsim, stratum A. Jar with two handles and pointed base. AASOR XII, pl. 52:5, p. 79 f.
6. Tell en-Nasbeh, Tomb 29, West Cemetery, Y2 (1749). Conical jar. Ware: red brown; fairly soft; small white, fine gray grits. Finish: wet-smoothed. H. 195 mm.
7. Tell en-Nasbeh, Tomb 32, North Strip, West Cemetery, X69 (1903). Jar. Ware: soft; light brown; medium and small light gray, fine white, grits. Finish: wet-smoothed. H. 385 mm.
8. Tell en-Nasbeh, Cistern 176, N17, basket 60, X57 (1031). Major portion of whole-mouth jar. Ware: hard, sandy; mottled light-red and buff. Finish: wet-smoothed. H. 220 mm.



which was maintained with practically no change between about 800 B.C. and the Exile.<sup>88</sup> This period probably represents the purest Israelite culture, more particularly in the hill country, and is the developed Middle Iron Age. So it is seen again that the selection of 900 B.C. as the terminal date for the Early Iron Age is an attempt to balance between fully developed phases of the Early and Middle periods. In short it is a balance between the overlapping aspects of the major trends.

If there is any type characteristic of this phase it would be the disc-base saucer lamp.<sup>89</sup> See Pl. 7:1. Another vessel which is most common in the tenth-ninth centuries B.C. is the pyx-form in burnished blackware, which seems to be ultimately related to the Mycenaean pyx. See Pl. 4:9 for local imitation of Mycenaean pyx and Pl. 7:2 for blackware pyx form. Other types which make their appearance at this time are the whole-mouth jar, the conical-based jar with two handles, and the three-handled jar with spout and ring base.<sup>90</sup> (The latter may have appeared slightly earlier, as would seem possible from the evidence at Tell en-Nasbeh.) These types will be included under the Middle Iron Age, being among the most characteristic types of this period.

Vertical loop handles with incipient ribbing also make their first appearance in the transitional phase between the Early Age and Middle Iron Age.<sup>91</sup>

Ring burnishing, i. e. wheel-burnishing, which is found first in the Middle Bronze II,<sup>92</sup> and during which



period it seems to be finer and more regular than that of Middle Iron Age, also reappeared. However, at first the lines are wavering and uncertain, as though made on a wheel slowly turned by hand. Bowls of this phase of ring burnishing are usually burnished both inside and outside.<sup>93</sup> However, ring, or more accurately spiral burnishing, is far more common and characteristic of the Middle Iron Age,<sup>94</sup> so the material will be included in the discussion on finish of this period, which now follows.

### Middle Iron Age (Early Iron II)

Even in the hill country, this period does not represent a sharp break with the preceding one, as was the case between the Early Iron Age and the Late Bronze Age. However, after a long transitional phase, one of the most distinctive and homogeneous cultures in the history of Palestine was developed. This is especially true of the pottery series.

#### 1. Form

The <sup>â</sup>zir, or large storage jar, has the same general characteristics as before; rounded or pointed bases, inverted egg shape more common, vertical-loop handles of smooth oval section, and fairly coarse, thick ware. However, there is more variety in rim shape. The Tell en-Nasbeh material suggests that the rim type which continues the general shoulder contour rather than changing its direction by turning up, or back, is a variety that becomes







1. Tell en-Nasbeh, Room 74, AH20, Y4, (296). Portion of jar with four handles, each having lamelek impression. Ware: brown with gray core. H. 493 mm.+. Palestine Institute Photograph No. 768b.



common in the Middle Iron Age, and perhaps is carried over into the Late Iron Age and Hellenistic periods on slightly smaller vessels. In any case this kind of zîr rim is the most common general type for the above mentioned site and period. An example is shown on Pl. 7:3.

Jars, such as Pl. 7:5, have been called common types for all of Palestine in the Middle Iron Age.<sup>95</sup> The general body shape (the most nearly complete example known at present) of a jar which has a royal seal impression on each ribbed handle is shown on Pl. 8. As will be seen below, the impressions and ribbed handles are characteristic of the Middle Iron Age. The ware, if allowance is made for weathering, is almost as typical. It is usually hard, giving a metallic ring when struck, of a variation from red-brown surface to medium-gray or drab core, and with numerous grits, many limestone. The combination of these factors certainly make this a characteristic vessel of the period.

Among the vessels which appeared in the transitional phase but which became common later are the conical jars with two handles (small amphoras). Some also have knob or button base, are often covered with red or brown slip and burnished vertically, "and sometimes decorated with painted bands, which are otherwise almost completely lacking in the pottery of E.I. II" (Middle Iron Age).<sup>96</sup> See Pl. 7:6

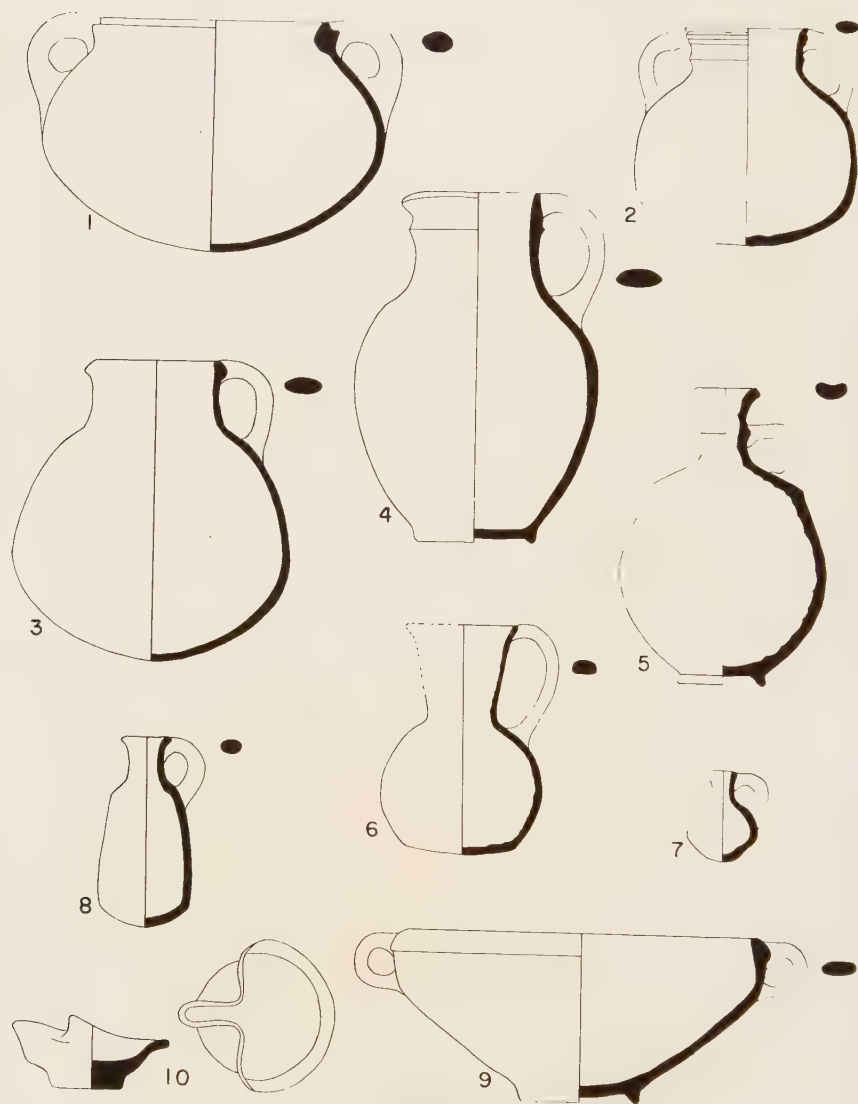
As mentioned above the three-handled jar with ring base and spout probably appeared slightly earlier than the





MIDDLE IRON 900-600 B.C.

PL. 9



10 cm.

1. Tell en-Nasbeh, Room 576, AD18, I, X20 (2787). Wheel-made cooking pot. Ware: medium hard; medium red-brown with core containing very many fine and occasional small white grits. Finish: wet-smoothed; outer surface smoke-blackened. Diam. ca. 155 mm.
2. Tell en-Nasbeh, Cistern 368, AG19, I, baskets 8-14, X25 (2469). Cooking pot. Ware: medium hard; surfaces light red-brown and core of medium red-brown containing occasional fine white grits. Finish: wet-smoothed; smoke-blackened. Diam. ca. 87.5 mm. H. 160 mm.
3. Tell en-Nasbeh, Cistern 285, P22, baskets 60-74, X74 (1712). One-handed pot. Few fragments missing. Ware: fairly soft; red-brown; fine white grits. Finish: wet-smoothed. H. 218 mm. Diam. 197 mm.
4. Tell en-Nasbeh, Cistern 36, AJ24, X7 (0161). Pitcher, wheel-made. Ware: dark brown, buff surface; white grits. H. 257 mm.
5. Tell en-Nasbeh, Room 492, Extramural, X9 (2519). Wheel-made decanter. Ware: hard; light brown with core containing occasional very fine, extra-large white grits. Finish: wet-smoothed; horizontal burnishing tending to ring on outer surface. Diam. ca. 40 mm. H. 215 mm.
6. Tell en-Nasbeh, Cistern 216, P17, basket 26, X54 (991). Major portion of jug, part of rim and neck missing. Ware: orange-buff; few medium white grits. Finish: outer surface and inside of neck covered with red (hematite) slip. H. 168 mm.
7. Tell en-Nasbeh, Cistern 362, AB16, I, Y47 (2890). Wheel-made blackware juglet. Ware: medium hard; black with core containing very many very fine white grits. Finish: wet-smoothed; outer surface irregularly vertically burnished; weathered. H. 63 mm.
8. Tell en-Nasbeh, Cistern 166, AG20, X2 (525). Juglet. Ware: light red. Finish: slightly burnished vertically in bands on surface. H. 138 mm.
9. Tell en-Nasbeh, Cistern 176, N17, baskets 10-17, X17 (1016). Major portion of two-handled bowl. Ware: hard; red; few medium white grits. Finish: burnished horizontally inside and on rim. Diam. 245 mm. H. 120 mm.
10. Tell en-Nasbeh, Cistern 368, AG19, I, baskets 14-19, Y56 (2474). High-foot lamp. Ware: medium hard; light orange with core containing some fine and large white grits. Finish: wet-smoothed; weathered; spout blackened. H. of foot ca. 16 mm. Diam. ca. 118 mm.



tenth century B.C.<sup>97</sup> However, these vessels are more common in the Middle Iron period, and therefore are so included.<sup>98</sup> See Pl. 7:7.

Perhaps the most numerous and characteristic type of this period is the whole-mouth ("cylindrical") jar, even though its chronological spread is slightly beyond it. The body shape does not vary much from cylindrical, although considerable variation is shown in the modeling of the rim. In a comparative discussion of relevant material (AASOR XII, p.79b) Albright draws the conclusion that they were no longer in use "at least after the fifth century," and remarks that some have been found as early as the tenth century.<sup>99</sup> See Pl. 7:8.

The cooking pot of the transitional phase is said to be similar to the Early Iron Age type that has the collared rim, sharp shoulder, and shallow body, except the clay is finer.<sup>100</sup> However, the shallow type is still common in the developed Middle Iron Age, but its shoulder is rounded, and the commonest rim profile is shown by No. 1 of Pl.9.<sup>101</sup> The deeper type with elaborately profiled or ribbed rims also comes in at this time and eventually displaces the shallower type.<sup>102</sup> As mentioned above these vessels are of finer clay, even comparable to Late Iron Age pots from which, "it is difficult to distinguish" them "except by the thickness of rims and handles, which is a somewhat variable



criterium."<sup>103</sup> See Pl. 9:2 for this Middle Iron-Late Iron Age type.<sup>104</sup>

"One-handled jugs, pots and pitchers, generally with wide mouths, were never so common in the history of Palestine as in E.I. II" [Middle Iron]. Almost all have plain surfaces, except the ring-burnished decanter, which is the most characteristic single type of jug.<sup>105</sup> For one example each of the one-handled pot and pitcher see Pl. 9:3, 4. These types appeared earlier but were neither common nor characteristic.

The decanter, however, is characteristic, its period extending little, if any, beyond the limits of the Middle Iron Age. Albright gives the dates 900-600 B.C. as marking its range, with a possible downward extension of a few decades.<sup>106</sup> This agrees with Mackenzie, although Petrie dated some of his material slightly earlier, as might be possible with the Tell en-Nasbeh evidence also. For example see Pl. 9:5.

Another exception to the jug category with plain surface is the vessel shown on Pl. 9:6 which has a red (hematite) slip. This type has occurred rather frequently at Tell en-Nasbeh and always in a Middle Iron Age context. What one would judge to be similar examples from descriptions and illustrations have been found at other places.<sup>107</sup> Regardless of where found, it is a characteristic Middle Iron piece for that site, at least so far as can now be determined.



Coming again to the burnished blackware juglet category, it is to be remembered that the Early Iron Age type is of more graceful body shape, with longer neck, and with handle attachment some distance below the rim. The Middle Iron Age juglet, however, has the handle attached to the rim. See Pl. 9:7. It apparently continued in use as late as the end of the seventh century, and was the second most abundant juglet type. There are vessels very similar except that they are of buff or brown ware.<sup>108</sup> ✓

These seem to have been gradually superseded by the elongated juglet, the most numerous small vessel in the Middle Iron Age.<sup>109</sup> ✓ These have the round mouth, (Pl.9:8) while the Early Iron Age type has the pinched lip, this being their chief distinction. The earlier type probably survives into the ninth century, and the latter continues until the end of the Middle Iron Age.<sup>110</sup> ✓

Bowls with thick rims, of which Pl. 9:9 illustrates one variety, are considered to be pure Middle Iron Age in type.<sup>111</sup> ✓ At Tell Beit Mirsim it was found that, if they were wheel burnished both inside and outside, they belonged to the earlier part of the period, or the transitional phase. For ring burnishing the exterior was a characteristic practice during the transitional phase, but it disappeared almost entirely about 800 B.C.<sup>112</sup> ✓ As ring (spiral) burnishing is very characteristic of the Middle Iron Age all over Palestine, and, as it is most frequent on bowls, a combination of the two would give a characteristic type, which is shown on Pl. 6: lower left.



Lamps of the Middle Iron Age have very much the same appearance as the broad rim variety of the Early Iron Age when seen from above, "but they differ from them in having a foot, either flat, disc, or raised. It must be borne in mind that the lamps with low foot are not necessarily older than those with high foot, though the latter tend, as a class, to be younger than the former. It is still uncertain whether this type of lamp survived long after the exile or not; the present probability seems to be that it was gradually replaced during the Persian [Late Iron Age] period by the small, folded type..."<sup>113</sup> The flat-base type, as mentioned above, is likely more common in the early part of the transitional phase. In the context quoted above Albright suggests that the low-foot base is more characteristic of southern Judah and the high-foot base of northern. See Pl. 9:10 for example of high-foot-base lamp.

Flasks, ring-stands, and chalices are common in the Early Iron Age as well as during the Middle Iron Age with no significant variation in form characterizing the two phases. Therefore, the illustrations for the earlier period (respectively Pl. 4:6, 7, 8) will serve for the later. However, it is to be remembered that any painted decoration would probably indicate that the vessel was of the Early Iron Age type.

Macalister observes that ring-bases become almost universal in this period as the Late Iron Age is approached.







- Upper left Tell en-Nasbeh, AG28x, X10, (785). Jar handle fragment with lemelek and circle and dot impressions. Ware: red. Palestine Institute Photograph No. 588.
- Upper center Tell en-Nasbeh, AG28x, X25, (799). Jar handle fragment with JH impression. Ware: light red. Palestine Institute Photograph No. 588.
- Upper right Tell en-Nasbeh, AG28x, X41, (829). Jar handle fragment with lemelek impression. Ware: brown with numerous white grits. Palestine Institute Photograph No. 588.
- Lower left Tell en-Nasbeh, West Cemetery, Tomb 22, north strip, X742, (2292). Jar handle fragment with seal impression. Ware: light brown with gray-brown core. Palestine Institute Photograph No. 1187.
- Lower top center Tell en-Nasbeh, Dump from Y12x and Z12x, X1, (1423). Wall fragment of vessel with design in plastic applied relief. Ware: red-brown with black core, with about average number of fine white grits. Palestine Institute Photograph No. 1187.
- Lower bottom center Tell en-Nasbeh, Dump from S12x, 13x, 14x, T13x, 14x, V12x, 13x, X15, (1433). Jar handle fragment with seal impression, possibly JHD. Ware: light orange-red with a few very small white grits. Palestine Institute Photograph No. 1187.
- Lower right Tell en-Nasbeh, AR23x, X12, (1796). Jar handle fragment with lemelek seal impression. Ware: red-brown surfaces, dark gray beneath, with average number of fine and medium white grits. Palestine Institute Photograph No. 1187.



Many jars of the Middle Iron Age, especially of southern and central Palestine, have a characteristic feature in the handles with two ribs running lengthwise. The royal stamped jar-handles are of this type. See Pls. 8; 10: upper left and right, lower right for examples. As was mentioned above, incipient ribbing was found in the tenth century B.C., while the two-ribbed handles seemed to have been introduced into southern Palestine between 850 and 750 B.C.<sup>115</sup>✓

## 2. Finish

As was mentioned above, painted decoration is rather uncommon in the Middle Iron Age. It sometimes occurs on amphoras (conical jars) and occasionally on small vessels of the ampulla and juglet varieties.<sup>116</sup>✓

And it was also mentioned before that "ring-burnished" sherds form by far the largest single group of characteristic sherds on all E.I. II [Middle Iron Age] sites.<sup>117</sup>✓ For type see Pl. 6: lower left and right. To recapitulate scattered references, especially evidence from Tell Beit Mirsim, ring-burnishing appeared first in the Middle Bronze Age; it reappeared in the transitional phase between the Early and Middle Iron Ages, following upon the practice of continuous hand burnishing, the technique being applied to both inside and outside of bowls, but in a wavering, uncertain way, as though the wheel was slowly turned by hand; later, the technique improved, being better described as spiral, and was applied only to rims and interiors of bowls,



in marked distinction to the earlier method. The developed Middle Iron Age bowls were never burnished outside, except a few small bowls. Many of these bowls also had a red slip. The best execution of spiral burnishing resulted in lines of evenness and regularity, which were quite decorative in appearance. This technique is said to have gone out of general use in the sixth century.<sup>118</sup> ✓

### 3. Ware

The ware of cooking pots, as usual, is coarser than for the average vessel. However, Albright distinguishes between the ware of cooking vessels for various periods; that of the Middle Iron Age, for Tell Beit Mirsim, is finer than for the Early Iron Age, and comparable to clay used in the Late Iron Age and Hellenistic pots.<sup>119</sup> ✓ In general the ware of this period, like that of the preceding, is considered inferior to that of the Late Bronze Age.<sup>120</sup> ✓

### 4. Miscellaneous

The well known and common "Astarte" figurine of the pillar type is characteristic of this period; therefore, it is of chronological significance, and should be taken into account when found with ceramic material not so closely dateable. As noted above, the Middle Iron Age and Late Bronze Age have one variety each, while the Early Iron Age has several. The pillar type (Middle Iron Age) may have a







- Upper left See Plate 10, lower bottom center for description. Palestine Institute Photograph No. A1171.
- Upper right Tell en-Nasbeh, Z24x, Y22, (1502). Jar handle fragment with rosette impression. Ware: light orange-brown surfaces with drab core, with average number of small white grits. Palestine Institute Photograph No. 1031.
- Lower left Tell en-Nasbeh, Rm. 269, S22, I, X11, (1608). Figurine with pedestal base, pinched face. Ware: red-brown with average number of small white and occasional large white grits. Finish: remains of white wash. H. 125 mm. Palestine Institute Photograph No. 1034.
- Lower right Tell en-Nasbeh. Head of "Astarte" figurine. Palestine Institute Photograph No. 1035.



modeled or conventionalized head. Pl. 11: lower left and right illustrates both types as well as the complete figure. This general variety is said to have come into Palestine from the north in the ninth century and is found as late as sixth century.<sup>121</sup> ✓

But more important for chronological purposes are the jar handle seal impressions. Of the "lemelek" or "royal" types, the four-winged, or scarabaeus, variety is considered earlier.<sup>122</sup> ✓ For examples see Pls. 10: upper right and lower right; 13:8. The approximate date assigned to these by Albright after reviewing the evidence and discussion up to 1925, was eighth century B.C., probably ca. 750-700 B.C.<sup>123</sup> ✓ The two-winged, or "flying scroll" or "roll," or "flying eagle," (Pls. 8; 10: upper left; 13:9) is placed in the seventh century B.C., going out about the time of the exile.<sup>124</sup> ✓ The inscription in Old Hebrew characters reads: "Belonging to the king (occasionally omitted). Hebron (Socoh, Ziph, Mamsat)."<sup>125</sup> ✓ These are considered contemporary, however, if of the same type.<sup>126</sup> ✓ As chronological evidence, these impressions are of chief importance for the hill country inasmuch as they are found within, or on, the borders of Judah.<sup>127</sup> ✓

Another impression contemporary with the "flying eagle" type is the rosette seen on Pl. 11: upper right, that is also a seventh century B. C. type.<sup>128</sup> ✓





Alt-hebräisch					Samaritanisch				Alt-Aramäisch		Quadratschrift		
Mesa ca. 840	Siegel und Gemmen 9-5 Jh. v. Chr.		Siloah ca. 700	Münzen		Aufstände 1.-2. Jh. n. Chr.	Ältere Steine 4.-6. Jh.	Bechschrit	Kursiv	Sudschrift 8. Jh. v. Chr.	Gewichte, Siegel usw. 8-3. Jh. v. Chr.	Ältere Inschrift 1.-4. Jh. n. Chr.	deutsch ca. 700 n. Chr.
א	א	א	א	א	א	א	א	א	א	א	א	א	א
ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב	ב
ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג	ג
ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד	ד
ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה	ה
ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו	ו
ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז	ז
ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח	ח
ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט	ט
י	י	י	י	י	י	י	י	י	י	י	י	י	י
כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ
ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל
מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ
נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ
ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס
ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע
פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ
צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ
ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק
ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר
ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש
ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת
י	י	י	י	י	י	י	י	י	י	י	י	י	י
כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ	כ
ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל	ל
מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ	מ
נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ	נ
ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס	ס
ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע	ע
פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ	פ
צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ	צ
ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק	ק
ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר	ר
ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש	ש
ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת	ת

Abb. 181. Schrifttafel.

Table of West Semitic Alphabets. Benzinger, I., Hebräische Archäologie, third edition, Leipzig, 1927, figure 131, p. 124.



In connection with the study of seal impressions which have alphabetical characters represented, it is necessary to consider the forms of these letters, inasmuch as they varied in the course of centuries, and are, therefore, of chronological significance. Comparative tables of alphabets are indispensable for such palaeographical research, an example of one being shown on Pl. 12.<sup>129</sup> ✓ Inscrip-tional material of any sort on pottery should be carefully studied as a means of helping to determine the date and sequence of vessels. And in a broad way any such representation may be considered to be an aspect of finish, therefore, well within the purview of the ceramist.

The discussion of this period might well be closed by observing that in general there was some deterioration in the forming and finishing of pottery objects. The ware was rather coarse, but usually well baked, so that it was quite serviceable.

#### Late Iron Age (Early Iron III)

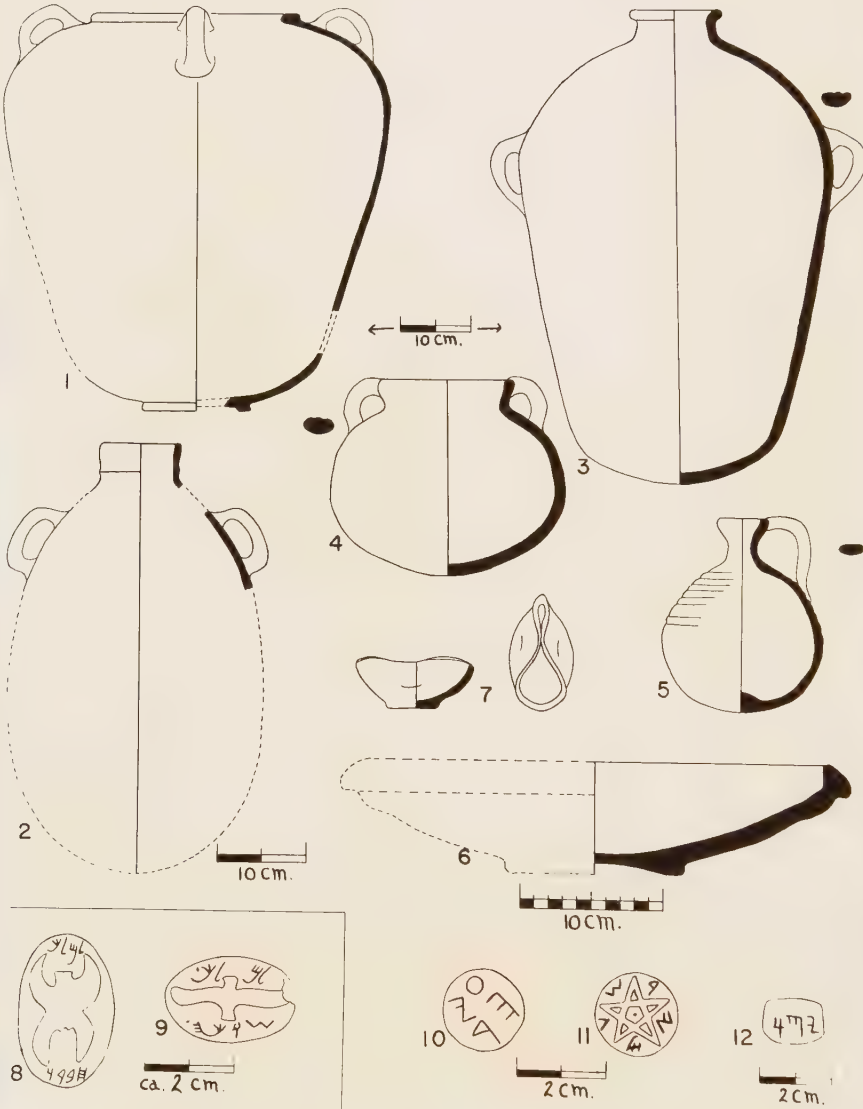
As noted before, the beginning of this period is marked by an extensive destruction of towns in the hill country,<sup>130</sup> ✓ and a serious blow was dealt to the Israelite culture complex of the Middle Iron Age. Certain aspects of it, however were carried over. But other influences were soon leaving their impressions. As to their extent and date the authorities are not in close agreement.<sup>131</sup> ✓ No doubt this condition is largely due to lack of knowledge, for as it





LATE IRON 600-300 B.C.

PL. 13



1. Tell en-Nasbeh, X12x, above and east of city wall, X68. 7fr, handles on shoulder. Parts missing. Ware: fairly hard; light brown with light red-brown core; fine white grits. Finish: nearly entire surface burnished. H. 570 mm. Diam. 550 mm.
2. Samaria, Cistern 3 at the Basilica. Fragments of a jar [not of certain date]. Ware: drab or pink surface, gray beneath; thin. Reisner, G. A., Fisher, C. S., and Lyon, D. G., Harvard Excavations at Samaria 1908-1910, Cambridge, 1924, vol. I, fig. 160, 3, pp. 234, 285.
3. Tell en-Nasbeh, Tomb 168, (592). Four-handle jar. Ware: reddish, pale gray core. H. 680 mm.
4. Tell en-Nasbeh, Cistern 182, Pl8, baskets 21-25 inc., X42 (1421). Cooking pot. Ware: brown-red; medium white grits. Finish: portions smoke-blackened. H. 143 mm. NB: finger impression of right handle near rim attachment.
5. Tell en-Nasbeh, Room 428, AF18, I, X4. Major portion of wheel-made jug. Ware: hard; light brown with core containing many very fine white grits. Finish: wet-smoothed; weathered. Diam. ca. 35 mm.
6. Tell en-Nasbeh, Room 601, AC16, I, X14. Rim, wall and base fragment of wheel-made bowl. Ware: medium hard; light brown with core containing some very fine and fine and occasional small and large white grits. Finish: surfaces light greenish cream slip-smoothed. Diam. ca. 320 mm.
7. Tell en-Nasbeh, Room 433, VII, I, X12 (1412). Folded lamp. Ware: apparently medium hard; surfaces vary in color from light brown to dark gray due to uneven firing. Finish: wet-smoothed. L. 82 mm.
8. Duncan, J. Garrow, Digging up Biblical History, London, 1921, vol. I, figure 17, p. 135.
9. Duncan, J. Garrow, Digging up Biblical History, London, 1921, vol. II, figure 24, 8, p. 135.
10. ~~See also, JPOS, vol. XIII, 1932, Pl. XVII, 4, opposite p. 228.~~
11. ~~See also, JPOS, vol. XIII, 1932, Pl. XVII, 2b, opposite p. 228.~~
12. ~~See also, JPOS, vol. XIII, 1932, Pl. XVII, 2b, opposite p. 228.~~
13. Tell en-Nasbeh, Room 433, VII, I, X12 (1412). Scale drawing. See Pls. 10: lower bottom center; 11: upper left.



has been said, "the Persian period was until within the last few years the most obscure archaeological period in all the history of Palestine and Syria after 1700 B. C. Recent discoveries have altered this situation, though the pertinent data are so scattered and often so misinterpreted that this fact is hardly evident."<sup>132</sup> Therefore, the published facts being what they are, it will be impossible to collect a series for this phase that will be of comparable completeness and comprehensiveness to those of the earlier periods.

### 1. Form

It was suggested that zîrs which have a rim that continues the general shoulder contour came in during the latter part of the Middle Iron Age and probably were carried over into later periods. The one shown on Pl. 13:1 is a likely possibility for this category. It does not measure up to the arbitrary height requirement for this class, but was so included on grounds of general size. Note the ring base, a very unusual feature of large vessels, and also that the ware is superior to that of the ordinary large vessel, especially of the Middle Iron Age. Both of these features are consistent with the Late Iron Age characteristics.

Jars with collared rims appeared in the Late Bronze Age and then reappear in the Late Iron Age and continue into the Hellenistic period.<sup>133</sup> Pl. 13:2 shows the type.



Another jar type that is probably common at this time seems to have a long history, being known before and after this period.<sup>134</sup> See Pl.13:3.

One of the Middle Iron Age forms which is carried over is the deep cooking pot with the rilled rim as in Pl.9:2. Another type which seems more common in the Late Iron Age is a vessel with deep body but having a comparatively plain rim. See Pl.13:4.

A small jug of the type shown on Pl.13:5 seems to be present in the Late Iron period but is also common in the Hellenistic phase.<sup>135</sup>

A bowl of the type dated by Père Vincent some years ago to the sixth-fifth centuries,<sup>136</sup> is shown on Pl.13:6. The rim is of the turned-over or folded-back type.

It was mentioned above that the high-foot lamp was probably carried over into the Late Iron period.<sup>137</sup> Albright and Fitzgerald mention<sup>138</sup> that it was displaced, probably gradually, by a new folded over type which is shown on Pl.13:7. This type was also common at Beth-Zur in the Late Iron-Hellenistic deposits.<sup>139</sup> It lasted into the Hellenistic period and gave way, eventually, to the molded type of lamp.

Flasks (pilgrim bottles) and ring-stands were common, but no significant types can be singled out.

Significant features are the collared rims of jars or jugs mentioned in connection with jar of Pl.13:2, and ribbed handles.<sup>140</sup> The ware of the collared rims is finer,





CHALCIDEAN POTTERY

PLATE VII



## Greek Potsherds Found in Palestine

1. Ascalon. Smooth light yellow clay. Lustrous dark brown paint. P.E.F. Quarterly, April, 1923. Pl. III, 2. Mycenaean. Fragment of Octopus.
2. Ascalon. Red clay covered with light yellow slip. Dark brown non-lustrous paint. Op.cit. Pl. IV, 14. Perhaps Naukratite.
3. Ascalon. Finely levigated light yellow clay. Well-made pot. ( ), int. black. Op.cit. Pl. II, 4. Fragment of Kotyle. At X on Diagram is a slight swelling, showing that once a handle started there. The paint is very carelessly applied. Perhaps the vessel was repainted in this country. Museum No. P.637.
4. Ascalon. Red clay with yellow slip. Brown paint thinning to red. Non-lustrous. Op.cit. Pl. IV, 1. Base of bowl.
5. Ascalon. Yellow clay. Bands of red-brown. Spiral overlaid in cream paint. Op.cit. Pl. IV, 3.
6. Ascalon. Red rather loose clay with small crystals. Yellow slip on interior. Three red-brown bands on exterior. Subject painted on the inside in brown thinning to red, with bands of purple. Op.cit. Pl. IV, 17. Apparently part of Rhodian pinax.
7. Gezer. Red Attic ware. Lustrous black paint. Inner lines incised. Purple on beard, ivy-wreath, and garment. Lyre, etc., in white overlaid. Macalister, Gezer, Vol. III. Pl. CLXXII, 21. Fragment of Sixth Century Lekythos. Revelling satyr swings lyre in right hand. Museum No. P.195.
8. Gezer. Light red ware with cream slip except on shoulder. Lustrous dark brown paint. Opposite side unpainted except at base. Finely drawn except the key-pattern, which was apparently put in by an assistant. Op.cit. Vol. II. Pl. 212, Fig. 362. The bands of decoration stop half way round. The ends of the strokes are visible and show that this was intentional. Museum No. V.272.
9. Tell el-Hesi. Red Attic ware. Excellent drawing in black lustre paint thinning to brown. Key-pattern by another hand. Bliss, Mound of Many Cities. Pl. 121, Fig. 245. Attic work of early Fifth Century. Museum No. P.196.
10. Tell Jemmeh, 1927. Red Attic ware. Lustrous black paint on vase. The well-modelled head was painted in red mixed with white, and in yellow. Phryon of middle Fifth Century. Museum No. P.1592.
11. Tell Jemmeh, 1927. Red Attic ware. Fine lustrous black paint thinning to brown for inner lines. P.E.F. Quarterly, July, 1927, pp. 131, 132. Apparently a funeral lekythos because the fine composition of the group is strongly influenced by sepulchral reliefs. The drawing is just beginning to get careless, but its position when found seems to indicate the middle Fifth Century. Museum No. V.1762.
12. Tell Jemmeh, 1927. Red Attic ware. Rich lustrous black paint. Middle Fifth Century. Museum No. P.1597.
13. Gezer. Red Attic ware. Macalister, Gezer III. Pl. CLXXVII, 15b. Latter half Fifth Century. Museum No. P.1459.
14. Provenience unknown. Red Attic ware. Red glaze on inner surface. Careless late work. Museum No. P.197.
15. Tanturah, Cave 2. White slip on light red clay. Dull brown paint. B.S.A.J. Bulletin No. 4. Pl. III, 10. Careless naturalistic work.



having fewer and smaller grits. The ribbing of these Late Iron Age handles is one strongly marked ridge, somewhat carelessly done. "The seals of the Temple treasury in the post-exilic age are invariably stamped on E.I. III [Late Iron] handles."<sup>141</sup>  
 ✓ This type of handle is also found in the Hellenistic period. See Pls. 10: top center and bottom lower center; 11: top left.

A plate (Pl.14) of fragments of Greek ware is included here to serve what purpose it may. Just when Greek influence became an important element in the culture of Palestine is not accurately determined. However, Greek pottery, having been carefully studied and organized, furnishes good material for chronological analysis; so all pieces of it should be thoroughly treated when found. The student would have to refer to works on Greek pottery in order to get accurate information on specific problems.

## 2. Finish

The general state of information about this period makes the selection of characteristic decoration impossible. The Greek ware, however, must not be forgotten, even though it seldom appears on some of the hill sites. There are also found some simple painted designs in bands and network, and impressed and burnished decoration.<sup>142</sup>  
 ✓ The impressed decoration is of rather frequent occurrence, but the material has not yet been accurately determined.<sup>143</sup>  
 ✓



### 3. Ware

In connection with the collared-rim jar (Pl.13:2) and cooking pots (Pls.9:2; 13:3), it has been noticed that the ware of the Late Iron period shows some improvement over that of the immediately preceding phases.<sup>144</sup> However, other authorities think the ware was coarser but the firing better; improvement at this point also seems to depend upon date and degree of Greek influence.<sup>145</sup>

### 4. Miscellaneous

Of considerable chronological significance are three groups of seal impressions, usually appearing on jar handles, which belong to the Late Iron Age. The earliest one, according to Albright whose dates for these impressions are given, bears four letters variously distributed and should read "Judah." The second half of the fifth century B.C. seems to be the date for this type. See Pl.13:10.

The Yerûshalem, "Jerusalem" type, bearing a pentagram, between whose apices are five letters, belongs mainly to the fourth century B.C. but may extend back to late fifth. See Pl.13:11.

"The last group of these seal impressions is formed by stamps with three letters, reading Yehûd (sometimes only Yh, as Sukenik has again proved. These seals were formerly read Yahu or Yah, as though they bore the name of the God of the Jews, but the reading "Judah" is certain. This group invariably bears Aramaic, not old Hebrew characters, and



the pottery shows that it is the latest of the three."<sup>146</sup>  
See Pls.10:upper center, lower bottom center; 11:upper  
left; 13:12. This type would then have been in use about  
the time given for the end of this period and the begin-  
ning of the Hellenistic.

But it has been sufficiently indicated above that  
Greek culture was not introduced into Palestine by Alex-  
ander. It had been influencing this country many years  
before, a more exact determination being dependent on  
further research and publication. Part of this influence  
was in the improvement of ceramic technique, especially  
in the mixing and firing of clay. With the coming of  
Alexander the processes of diffusion were intensified,  
especially the Greek influence, and a culture phase was  
begun which has been called Hellenistic.



CHRONOLOGY

300 B.C. 400 B.C. 500 B.C. 600 B.C. 700 B.C. 800 B.C. 900 B.C. 1000 B.C. 1100 B.C. 1200 B.C.

LATE IRON AGE MIDDLE IRON AGE TRANSITIONAL PHASE PHILISTINE PHASE EARLY IRON AGE

ZIRS	
INVERTED EGG - VARIOUS	
<u>RIDGED AT NECK-SHOULDER</u> 2:1,2	
RIM CONTINUING CONTOUR 7:3; 13:1	
JARS	
INVERTED EGG - VARIOUS	
<u>WHOLE-MOUTH "CYLINDRICAL"</u> 7:8	
3-HANDELED 7:7	
CONICAL (AMPHORA) 7:6	
WITH "ROYAL" SEAL IMP. 8	
COLLARED-RIM 13:2	
COOKING POTS	
PROFILED & COLLARED RIMS 2:4,5	
DEEP TYPE WITH RILLED RIM 9:2	
" " " PLAIN " 13:4	
JUGS	
STRAINER SPOUT 2:6	
"PHILISTINE" 3	
DECANTER 9:5	
RED-SLIP 9:6	
SMALL, GLOBULAR 13:5	
JUGLETS	
CYPRIOTE 2:8	
BLACKWARE 2:9; 9:7	
ELONGATED 2:10; 9:8	
BOWLS	
WAVY PROFILE 4:1	
SMALL, RED-BURNISHED 4:2	
THICK-RIM 9:9	
SHALLOW; FOLDED-BACK RIM 13:6	
CRATERS	
"PHILISTINE" 5	
LAMPS	
ROUND-BOTTOM, FLAT-RIM 4:4	
SEVEN-SPOUTED 4:5	
DISC-BASE 7:1	
HIGH-FOOT 9:10	
FOLDED OVER 13:7	
FLASKS	
TWO-HANDELED LENTOID 4:6	
STANDS	
RING STANDS 4:7	
CHALICES	
HIGH TRUMPET-BASE 4:8	
PYX	
IMITATION 4:9	
PYX-FORM, BLACKWARE 7:2	
RIMS	
FLAT-RIM BOWLS 4:10	
COLLARED 2:4; 13:2	
HANDLES	
PINCHED-BUTTON (TAB) 4:10	
BONE (SPATULATE) 4:11	
OVAL SECTION, VERTICAL-LOOP	
TILTED, HORIZONTAL-LOOP 5	
INCIPIENT RIBBING	
TWO-RIBBED 8	
ONE-RIBBED 10: TOP CENTER	
BASES	
KNOBBED 4:12	
RING	
PAINTED	
BURNISHING	
CONTINUOUS-HAND	
CRISS-CROSS OR CHORDAL LINE 6:TRT	
VERTICAL	
RING (WHEEL) 6: BOTTOM	
GREEK WARE 14	
"PHILISTINE" WARE 3 & 5	
IMPRESSED	
WARE	
TECHNIQUE, LACK OF SURFACE SMOOTHING	
"ASTARTE" FIGURINES	
DOVE AT BOSOM	
PILLAR TYPE 11: LOWER	
SEAL IMPRESSIONS	
FOUR-WINGED "LEMELEK" 13:8	
TWO-WINGED " " 13:9	
ROSETTE 11: UPPER RIGHT	
"JUDAH" 4: LETTER 13:10	
"JERUSALEM" 13:11	
"JUDAH" 2 OR 3: LETTER 10: TOP CENTER, 13:12	
GREEK WARE 14	

HANDLE ATT. AT RIM HANDLE ATT. BELOW RIM

ROUND-MOUTH PINCHED-LIP

SOME SIMPLE DESIGNS INCREASINGLY NUMEROUS VERY RARE CONSIDERABLE; CONTINUATION OF L.B.A.

INSIDE & RIM PARTIALLY OUTSIDE

SOME IMPROVEMENT, AT LEAST IN FIRING FAIRLY COARSE COARSER THAN SUCCEEDING PERIODS



1. Standards of Pottery Description, Ann Arbor, 1934, with an introduction by Carl E. Guthe.
2. The Tell en-Nasbeh Expeditions, as has undoubtedly been the case with other expeditions, used descriptive terms which were improved upon from season to season. Even though largely subjective, by repeated checking and comparison, individuals became trained to see things in substantially the same way. And some objective methods were attempted, especially with color charts, but these were not too successful; probably due to type of charts used. However, March suggests some methods which are about as objective as can be expected. Therefore, they should be tried, and if found feasible, adopted, until such time as better methods are put forward.

In a general way March treats the subject along the lines long since marked out by ceramic research; so that the following section will appear quite similar in form. On the other hand his organization of material has been fairly closely followed, especially with respect to treatment of detail, and it is a pleasure to acknowledge this fact.

3. Failure to recognize this would lead to very confusing results if descriptions were not supplemented by outline



representation. See Albright, William Foxwell, The Excavation of Tell Beit Mirsim in Palestine, vol. I, The Pottery of the First Three Campaigns, AASOR XII, p. 19f. and Pl. 41:10, 12-16.

4. Meyer, Franz Sales, A Handbook of Ornament, 3rd English edition, revised, London, 1924, p.304, Pl.181.

5. The system of scales will not be regular as they have been assembled from many sources. As for the photographs, so far as published material is concerned, no regular scale is in use.

6. As applied at Tell en-Nasbeh, this is an arbitrary standard which occasionally had exceptions to it.

7. This term was retained in use, as has been the case at Tell en-Nasbeh, because it is only applied to this type, which is characteristic of the Middle Iron Age. The term "hole-mouth," used by others, is not only applied to this type but to other vessels which have a rim but no neck. However, their fundamental body shape is different. Therefore, the terminology violates the first principle of pottery description. And in practice no one can be sure to what form the term refers without having illustrative material for amplification. Thus, the name is not precise, and



neither is it particularly imaginative inasmuch as the mouths of all vessels are holes. Yet if it is firmly established in the archaeological vocabulary, it would be more serviceable if applied to a fundamental type.

8. These are brief descriptions which suggest rather than define the techniques mentioned. For detailed treatment of almost any phase of the ceramic craft one should consult Alfred B. Searle, An Encyclopaedia of the Ceramic Industries, 3 vols., London, 1929-1930.

9. AASOR XII, pp.40 f., 81b, 87b; and in another work, AASOR XIII, p.58 note.

10. At this point it might be well to mention the work that has been done by Miss Anna O. Shepard of the Laboratory of Anthropology, Santa Fe, New Mexico, during the early thirties. The studies she made on the physical properties of pottery are much beyond anything undertaken for Palestine. However, it would seem that such study will be necessary to get definitive information with respect to the origin and distribution of certain pottery types.

11. At Tell en-Nasbeh there were six indications of size ranging from very fine to very large, and five indications of number ranging from very many to occasional. The standard for very many, very fine white grits was the well



known blackware juglet. Small grits were approximately 1 mm. in diameter and very large about 3 mm. Occasional meant that two or three were noticeable in a surface area of about one hundred square centimeters.

12. SPD, p.21 b.

13. SPD, p.26 b.

14. See Barton, George A., Archaeology and the Bible, Philadelphia, 5th edition, 1927, p. 13 a.

15. No discussion of the material on which archaeological chronology rests is to be attempted here. For the purpose of this study it is assumed as substantially correct.

16. Albright, APB, 3rd ed., p. 24.

17. Albright considers his terminology better than that introduced later by Macalister which proved misleading. In the same place some synchronization with the modern chronology is made. APB, p. 24 a.

18. W. M. Flinders Petrie, Tell el-Hesi, London, 1891.



19. However, Duncan makes a close correlation between material culture and an ethnological group. Collections of pottery commonly considered as belonging to different periods he assigns to the same period, the difference being due to the manufacturing of one series by the Canaanites, and other series being produced by their Hebrew conquerors. Duncan, J. Garrow, Digging up Biblical History, London, 1931, vol. I, p.238 f.

20. Frederick Jones Bliss and R. A. Steward Macalister, Excavations in Palestine, London, 1902, p. 73 c.

21. Bliss, Frederick Jones, A Mound of Many Cities, London, 1898, p. xi.

22. "The dates given to the strata by Bliss are substantially correct back to the end of the third city, thanks to numerous scarabs and a number of other inscriptions, cuneiform and Hebrew, found in them. The date of the first occupation must, however, be pushed back, with our present knowledge, to before 2300 B.C. Unfortunately, Bliss's publication of his results was inadequate, partly because of a mistaken policy of economy on the part of the Fund, so it was difficult for other scholars to obtain a clear idea of the ceramic classification and chronology." APB, p. 25 a.



23. EP, pp. 71-76

24. EP, p. 77

25. APB, p. 26

26. Macalister, R. A. Stewart, The Excavation of Gezer, London, 1912, vol. I, p. xxi, vol. II, p. 131. Albright commented in APB, p. 27; that Macalister mistakenly "shifted his chronology downward, so that 'Persian' became 'Hellenistic' while 'pre-exilic' became 'post-exilic' (Persian);" and elsewhere (AASOR XII, p. 77a), that, in brief, there is no reason to believe that Gezer was an occupied town between cir. 900 and cir. 500 B.C.

27. Sellin, Ernst, Tell Ta'annek, Wien, 1904-6; Schumacher, G., Tell el-Mutesellim, Leipzig, 1908; Sellin und Watzinger, Jericho, Leipzig, 1913; Reisner, G. A., Fisher, C. S., Lyon, D. G., Harvard Excavations at Samaria 1908-1910, Cambridge, 1924; Mackenzie, Duncan, Excavations at 'Ain Shems (Beth Shemesh), London, 1913 (APEF, vol II).

28. BASOR, 7, p. 9. It also appeared in Revue Biblique, 1923, p. 275, in the Palestine Exploration Fund Quarterly Statement, 1923, p. 124 f., note, and in the article on Palestine written by G. M. Fitzgerald which appeared in How to Observe in Archaeology, p. 78, a publication of the British Museum, 1929.



29. In Archaeology and the Bible, Philadelphia, 5th edition, 1927, p. 164 note, George A. Barton writes, "In 1922 the archaeologists working in Palestine agreed to use in the future the following classification of the periods represented by the pottery instead of that given in the preceding pages. It is here given for comparison, though in the opinion of the author it is open to criticism." And the classification that Barton used was mainly that published by Macalister, given above, illustrating that at least in use, the chronology set up by Bliss and Macalister was superceded, notwithstanding the comment of Albright APB, p. 26a. However, p.182 f. of 7th edition, 1937, of AB, Barton drops the Macalister chronology and adopts one in line with that published by Albright in JPOS, XI, p. 24, which will be given below. The chronological table set up by Stanley A. Cook in The Religion of Ancient Palestine in the Light of Archaeology, 1930, p. 242 ff. is a combination from many sources. The archaeological aspect of it was also drawn from many sources, some of which have been mentioned above, and have since been modified. Thus, this aspect of Cook's chronological scheme is considerably outmoded. The chronological scheme which Sir Flinders Petrie uses will be found to differ in many important aspects from that in use by other excavators in the Palestinian field. Consequently, it is of considerable practical value to know this, and to know how to synchronize his scheme with the more generally accepted one, when studying the very important results published by him in recent years.



30. JPOS XI (1931), p. 24 note. This is the table which Albright uses in Archaeology of Palestine and the Bible, p. 10. The sources for the chronology used in Badè, William Frederic, Excavations at Tell en-Nasbeh, Berkeley, 1928, p. 14 f. have not been found. But from about 1929 the working table was substantially the one given above, excepting Early Iron Age II and III were called Middle and Late Iron Age, respectively.

A very recent study of Wright, a student of Albright, has brought together the now considerable body of information about the earliest pottery of Palestine. Further division of the Early Bronze Age has been possible with a consequent modification of the chronology for this period. A general acceptance of this new chronology will mean slight changes in the subsequent periods, certain of which have been under discussion by various authorities. The new chronology follows:

Neolithic	Sixth-Fifth Millennia
Sub-Chalcolithic	Late Fifth Millennium (?)
Lower Chalcolithic	† First Quarter of the Fourth Millennium
Middle Chalcolithic	† Second Quarter of the Fourth Millennium
Upper Chalcolithic	† Third Quarter of the Fourth Millennium
Early Bronze I	a. 32nd-31st centuries b. 31st-29th centuries
Early Bronze II	29th-27th centuries
Early Bronze III	27th-24th centuries
Early Bronze IV	23rd-22nd centuries



Wright, G. Ernest--The Pottery of Palestine from the Earliest Times to the End of the Early Bronze Age, p.viii.

No other scheme for the earlier periods will be included in this study. It is interesting to compare this latest scheme with the others given above and observe how the archaeologists have enlarged the horizon of their pur-view, and with what constant acceleration this process has been extended.

31. Sellers, Ovid Rogers--The Citadel of Beth-Zur, 1933, p. 41 a.

32. This terminology is well known and in common use by some excavators, although no published table of it has been located. However, Albright, AASOR XII, p. 76, and The Haverford Symposium on Archaeology and the Bible, New Haven, 1938, p. 23 f., calls attention to its existence. It is adopted here for practical reasons which perhaps might eventually be in the interest of greater clearness and less ambiguity. In the first place Early Iron can easily be subdivided into I, II, etc., as with major divisions of the Bronze Age, which serves the double advantage of keeping the terminology consistent for the two phases both with respect to major and minor periods. Secondly there seems little point to calling a period Early Iron, a qualification which implies the use of a complementary term which does not appear if the Albright



table were carried through to modern times. If no further qualification follows why qualify in the first place; would not the terms Iron I, Iron II, and Iron III serve the same purpose? In any case the archaeological requirements would seem to be at least as well served by the last table given, which would have the additional advantage of being less confusing to the uninitiated.

Since writing this Albright has made another modification in his chronological terminology. (HS, p. 23 f.). The reasons offered are: first, a chronology of the type used for this pottery study is "unsatisfactory from the standpoint of the history of civilization," i.e., from standpoint of historical chronology; second, he writes, "In order to prevent further confusion the writer now uses 'Iron I' (12th-9th centuries), 'Iron II' (9th-6th centuries), and 'Persian' (instead of 'Early Iron III', which he used for some time)." But is it not the object to set up an archaeological, rather than historical chronology? And inasmuch as the authorities are not in agreement as to how important and extensive the Persian influences were, it seems unlikely that a period so named would "prevent further confusion." Therefore, it would seem that the present knowledge of archaeological facts for ca. 600-400 B.C. would not justify this usage.



33. It came in with the Philistines, who maintained a monopoly of the supply and manufacture of iron. Albright, AASOR IV, P.17 b. Its appearance was considered, "the most striking characteristic of the culture of B" (Early Iron I) at Tell Beit Mirsim. Albright, BASOR, 31, p.8 e.

34. Père Vincent distinguishes between two currents of development; first, the Late Bronze Age pottery of the coastal zone and the interior regions influenced by it was prolonged without great transformation; but, secondly, an almost radical decline in technique and decoration took place in the high country.--Vincent, P. L. H., Ceramique de la Palestine, ("Classification des Ceramiques Antiques"), 1923, p.18 f. Albright notes that at Tell Beit Mirsim and Beth-shemesh there was a break in the culture continuity at the end of Late Bronze Age, with a short period when foreign ware was not imported; that Ashkelon and Gerar had the break but not the "intervening hiatus"; but that in the north there was a gradual transition.--Albright, JPOS, XI, 1931, p.120. Macalister considers that there was a sudden cultural break with Israelite immigration, which was reflected in pottery as in other handicrafts. Macalister, R. A. S., A Century of Excavation in Palestine, London, 1925, p. 238 f. The area so affected would be largely hill country, then, during the earlier movements of the Israelites.



35. CEP, p.241 b.
36. JPOS, XI, p.120; APB, p.104.
37. CP, 19 b.; JPOS, XI, p.120.
38. AASOR, XII, p.59 a.
39. AASOR, XII, p.11 f., p.37 a; AASOR, XIII, p.84 f.
40. The evidence from Tell en-Nasbeh indicates that No. 5 of Pl. 2 was earlier than Albright suggests in AASOR, XII, p.68 b.
41. AASOR, XII, p. 67 b, p.73.
42. AASOR, XII, p. 73.
43. AASOR, XII, p.xxi and p. 57 f.; XIII, p.94 f. Heurtley refers to Albright for dating of "Philistine" pottery, and offers some additional evidence in support of this view. This pottery he considers an eclectic style, but not necessarily due to the Philistines. Therefore the term "Philistine" is unfortunate. Heurtley, W. A., "Philistine" and Mycenaean Pottery." QDAP, vol. V, 1936, pp. 102-109.



44. AASOR, XII, p.72 b; CPP, 82; Fitzgerald, G. M.  
The Four Canaanite Temples of Beth-shan, vol.II, The  
Pottery, part II, 1930, Philadelphia, Pl. XLVII:27.
45. AASOR, XII, p. 71 b.
46. AASOR, IV, p.14 f. gives some discussion of black  
juglet category.
47. AASOR, XII, pp. 67 b, 72 a, 83 b.
48. AASOR, XII, p. 70 b, p. 38 b, p. 66 b, p. 68 a.
49. AASOR, IV, p. 12 c.
50. AASOR, XII, p. 39 d.
51. AASOR, XII, p. 39 f., p. 70 b; XIII, p. 89 b.
52. HOA, p. 83 d; AASOR, XIII, p. 80 b.
53. AASOR, XII, p. 87 a.
54. AASOR, XII, pp. 42 c, 63 a, 70 f.; XIII, p. 90 d.
55. AASOR, XII, p. 71 a.



56. AASOR, XII, pp. 41 f., 73, 87 b.
57. AASOR, XII, p. 88 a.
58. AASOR, XII, p. 39 c, p. 72.
59. HOA, p. 86 c.
60. AASOR, XII, p. 44 f. There is some evidence to indicate that these types occur later, but they are neither common or characteristic.
61. AASOR, XII, p. 86 a.
62. AASOR, XII, p. 66 b.
63. AASOR, IV, p. 14 b. See also AASOR, XII, p. 63 a, p. 70 a. Later, in the same volume, p. 73, Albright says, "this type of handle, which survived in central Palestine, at least, into the ninth century, as we know from Samaria (§ I, 280, nos. 14 a, 20 a), was also at home in Syria and Mesopotamia."
64. AASOR, XIII, p. 71 c, p. 76 b.
65. AASOR, XII, p. 50 b. In an earlier work Albright considers this "an important datum for distinguishing pottery" of the Early Iron Age from the Middle Iron Age. AASOR, IV, p. 14 a.



66. As to their importance as evidence, some years ago Albright went so far as to say that their lack was "one of the indications of the non-penetration of Philistine culture into the central highlands of Palestine." AASOR, IV, p. 14 d. A somewhat similar position was expressed later. JPOS, XI, 1931, p. 120.

67. AASOR, XIII, p. 89 f.

68. AASOR, XII, p. 46 b.

69. AASOR, XII, p. 63 a.

70. AASOR, XIII, p. 81 a.

71. AASOR, XII, p. 66 a; IV, p. 15.

72. AASOR, XII, p. 24 a, p. 39 a.

73. AASOR, XII, p. 64 a.

74. AASOR, XII, p. 73. Most of these motives, as well as others, are included in the discussion of Palestinian pottery by Père Vincent, which, however, is not subdivided chronologically in a similar way to the scheme used above. The period under discussion is 1200-600 B.C. The decorative technique, as also pottery technique in general, is



a degeneration from that of the Early Bronze Age. The commonest paint colors are black, brown, and red. CP, pp. 18-22.

75. AASOR, XII, p. 62 b.

76. AASOR, XII, 59 a; some years ago Albright said pebble burnished pottery came in with the Philistines. BASOR, 6, p. 8 c.

77. AASOR, XII, p. 67 b; most of the examples given have what Albright says, "might be termed chordal line burnishing, i.e., wide bands of parallel burnished strokes, with the center of each stroke, as a rule, at right angle to the radius of the bowl."

78. AASOR, XII, p. 63 a.

79. AASOR, IV, p. 11 f.

80. AASOR, XII, preface, p. xivc.

81. AASOR, IV, p. 8 b.

82. AASOR, XII, p. 16 a, p. 40 f., p. 68 b., p. 81 b.

83. AASOR, XII, p. 38 b., p. 59 a, p. 70 b.



84. BASOR, 31, p. 8 b.
85. BASOR, 31, p. 8 e; APB, p. 110 b.
86. BASOR, 39, p. 9; JPCS, XI, p. 123 b.; BASOR, 52, p. 6 f.
87. AASOR, IV, p. 52 b.
88. BASOR, 39, p. 9 f.
89. AASOR, XII, p. 67 b.
90. AASOR, XII, p. 79 b, p. 80 f., p. 80 c.
91. AASOR, XII, p. 67 b.
92. AASOR, XII, p. 23 b.; XIII, p. 80 a.
93. AASOR, XII, pp. 66 b, 68 a, 69 b, 70 a.
94. AASOR, XII, p. 85 b.
95. AASOR, XII, p. 79 f. However, the material in CPF (46, 47), Palestine Museum Bulletin No. 4 (Pl.III, 3 & 4), QDAP, vol.II, p. 47, fig. 16, p.61, Pl.XIX, vol.III, p.78 and Pl.XXXIII, 14, and vol.IV, fig. 3, p.4 and pp.2-5, and



from Tell en-Nasbeh would indicate that these vessels have a wider chronological spread than the Middle Iron Age. Even so, they may be considered common for the latter period but hardly characteristic.

96. AASOR, XII, p. 80 f.

97. Some of the jars of this class from Tell en-Nasbeh come from a tomb, a large part of whose material must be at least tenth century, while the best example is from Level II. The latter has horizontal band painted lines in dark brown and red, which is still common in the Early Iron Age, but seldom found in the Middle Iron Age.

98. See AASOR, XII, p. 80 c. for additional references.

99. The vessels (AASOR, XIII, Pl. 10:1,4) from Middle Bronze II, are very similar in shape to examples of whole-mouth class, except they do not have the rounded base. However, a vessel from Tell Zakariya, published EP, Pl. 51:2, also has the ring base, but is of the same general period as the usual whole-mouth type with which it is associated. In the text, p. 103c, the authors suggest the type was developed in earlier times. And in view of the association just mentioned, as well as the similarity in form it does not seem unlikely that the prototype is seen in the Tell Beit Mirsim jars.



100. AASOR, XII, p. 68 b.
101. This type at Tell en-Nasbeh frequently had one or two finger impressions on handles.
102. AASOR, XII, p. 68 b, p. 81 b.
103. AASOR, XII, p. 81 f.
104. Middle Iron cooking pots of this type at Tell Beit Mirsim often have an incised cross ("tau") on the handle which Albright considers a factory mark of the town which manufactured them. (AASOR, XII, 81b.) Tell en-Nasbeh pots of this type also often had an incised cross on the handle. Whether they came from the same factory or not is difficult to say.
105. AASOR, XII, p.82 f.
106. AASOR, XII, p. 82 f.
107. Tombs 2,6,7 and 8 'Ain Shems, APEF II, Pls.XXXIII, XXXVII, XLIV, XLVII, LIV, LVI, LVII; Tell el-Fûl, QS 1915, Pl.IV--post-dated by Macalister, probably correctly dated by Clark.
108. AASOR, XII, pp. 71b., 83 f.



109. AASOR, XII, p. 83 f.
110. AASOR, XII, pp. 67b, 72a, 83b.
111. AASOR, XII, pp. 69b, 86a.
112. AASOR, XII, p.86a.
113. AASOR, XII, p. 86 f. Fitzgerald suggested a similar point of view some years earlier HOA, p. 87 a.
114. Quoted by Albright AASOR, IV, p. 13b.
115. AASOR, XII, p. 80d; IV, p. 23b. In another place Albright says ribbing of handles begins to appear in the Middle Iron Age (900-600) and becomes most marked in the Late Iron Age, when it displaced handles of smooth oval section. JPOS 5, pp. 47a, 53a.
116. AASOR, XII, p. 81 a, p. 84 d. Macalister's views are in substantial agreement with the findings at Tell Beit Mirsim. CEP, p. 239. One might gather that Vincent and Duncan consider it more common than suggested, although it is a little difficult to interpret these remarks and synchronize them with the chronology adopted above. CP, pp. 18-22; CPP, p. 20 f.
117. AASOR, XII, p. 85 b.



118. AASOR, IV, p. 22b; XII, pp. 23b, 66b, 68a, 69b, 70a, 79a, 85b; XIII, p. 80a.

119. AASOR, XII, pp. 68b, 81b..

120. CP, p. 19b; HOA, p. 86c; CEP, p. 20g; CEF, p. 238 f..

121. BASOR 31, pp. 8e, 10d; APB, p. 121 f.; JPCS, XI, p. 128b. Vincent and Fitzgerald also mention their appearance at this time. CP, p. 23a; HOA, p. 86d.

122. The pottery arguments which Albright advances (APB, p. 124a) for the priority of this type over the two-winged variety are not in the least convincing and should not be considered as conclusive.

123. JPOS 5, pp. 47, 52b. This view maintained substantially the same in later writings. AASOR, XII, p. 78 a; ZAW 1929, p. 15 c.

124. JPCS 5, p. 47. Later writings also uphold similar view. BASOR 31, p. 10 e; ZAW 1929, p. 15 c; BASOR 52, p. 10 b.

125. JPOS 5, p. 45 b..

126.. JPOS 5, p. 53 a.



127. JPOS 5, p. 45 b.
128. BASOR 52, p. 10 b.
129. Benzinger, I., Hebräische Archäologie, third edition, Leipzig, 1927, table p. 184. Another convenient table is to be found in HOA, p. 80.
130. HS, p. 31 f.
131. CB-Z, p. 39 f.; HS, pp. 32-35; CP, pp. 23-27; HOA, p. 87a; CEP, p. 239 f.; CPP, p. 20 f.
132. HS, p. 32 b.
133. AASOR, XII, p. 51a.
134. CB-Z, p. 43, fig. 34.
135. CB-Z, p. 48; CPP, p. 76; EP, Pl. 53; CP, p. 24 c.
136. AASOR, IV, p. 23 c.
137. AASOR, XII, p. 86 f.; HOA, p. 87 a.
138. ibid.
139. AASOR, XII, p. 86 f.; CB-Z, p. 51, fig. 41.



140. AASOR, XII, pp. 51a, 80d; IV, 24b.
141. AASOR, XII, p. 80d.
142. CP, p. 23 f.
143. CB-Z, p. 47, fig. 38.
144. AASOR, XII, pp. 51a, 81b.
145. CP, p.23; HOA, p.87a; CEP, p.239f; CPP, p.20f.
146. APB, p.175b. Cf. pp.173-175, for a discussion of the three types of impressions just mentioned, and references to more comprehensive treatment of similar material by Albright and E. L. Sukenik which appeared in BASOR and JPOS, where other sources are mentioned.



## Abbreviations

<u>AASOR</u>	Annual of the American Schools of Oriental Research
<u>AB</u>	Barton, Archaeology and the Bible
<u>ABP</u>	Albright, Archaeology of Palestine and the Bible
<u>BAJOR</u>	Bulletin of the American Schools of Oriental Research
<u>CB-Z</u>	Sellers, The Citadel of Beth-Zur
<u>CEP</u>	Macalister, A Century of Excavation in Palestine
<u>CP</u>	Vincent, Céramique de la Palestine
<u>CPP</u>	Duncan, Corpus of Palestinian Pottery
<u>EP</u>	Bliss and Macalister, Excavations in Palestine, 1898-1900
<u>HDA</u>	How to Observe in Archaeology
<u>HS</u>	Haverford Symposium on Archaeology and the Bible
<u>JPOS</u>	Journal of the Palestine Oriental Society
<u>QDAP</u>	Quarterly of the Department of Antiquities in Palestine
<u>QS</u>	Palestine Exploration Fund Quarterly Statement
<u>S</u>	Reisner, Fisher and Lyon, Harvard Excavations at Samaria 1908-1910
<u>ZAW</u>	Zeitschrift für die Alttestamentliche Wissenschaft



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